

March 23, 2010

Ladies and Gentlemen:

As Texas Comptroller, I am dedicated to understanding and promoting the Texas economy. One focus of my office is the study of regional economies and their impact on the state.

As a result of this ongoing commitment, we are publishing a series of reports called *Texas in Focus* that examines each of the state's 12 economic regions and provides information and analysis for local and statewide leaders.

This installment, *Texas in Focus: Gulf Coast*, examines 13 counties along and near our coast, including the Houston metro area and Galveston.

The Gulf Coast region's economic outlook is positive, with a diverse industry base providing valuable support for the state and national economies. As home to several of the world's largest energy companies, the region's traditional role as a leader in this sector should remain strong. Regional employment in health care continues to expand, and construction projects related to medicine were among the state's ten largest in 2008 and 2009. The Texas Medical Center's M.D. Anderson Cancer Center consistently ranks as the nation's top cancer treatment center.

Although the region experienced devastating effects from Hurricane Ike in 2008, the regional economy showed strong resilience, with help from state and federal aid programs. Gulf Coast employers provided a total of 2.6 million jobs in 2009. We expect the region's employment to rise by 2.6 percent annually between 2009 and 2014. Enrollment in its educational institutions remains robust, with 243,553 students in Gulf Coast universities, colleges and health-related institutions in fall 2008.

The region's economic strength and diversity will help ensure Texas' long-term growth and prosperity.

I hope you find this report useful.

Sincerely,

Susan Combs





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Introduction

With its enormous size, vast array of natural resources and large population, Texas plays a significant role in the nation's economy. Our vital and diverse economy has allowed Texas to weather the national recession better than most of the country.

Continuing success in the global economy will require economic growth and innovation, wise stewardship of our natural resources and access to high-quality health care and education for all citizens. State government must maintain an environment in which these requirements can be met.

The Texas Comptroller analyzes factors affecting the state's economy and uses this information to prepare the biennial forecast of state revenue. Our economists keep a careful watch on the state, detecting changes as they occur and identifying trends that will affect our common future.

In January 2008, the Comptroller began a series of reports called *Texas in Focus*. The first report, *A Statewide View of Opportunities*, examined the entire state for issues affecting the economy as a whole. This study was followed by regional reports examining the local economies of the High Plains, South Texas, Central Texas, East Texas, Upper Rio Grande and Alamo regions, and now the Gulf Coast.

This eighth report in the series, *Texas in Focus: Gulf Coast*, reviews trends and issues affecting 13 counties in the eastern-coastal



Downtown Skyline and Buffalo Bayou, Houston

PHOTO: Greater Houston Convention and Visitors Bureau



portion of the state, including the cities of Houston, Galveston, Huntsville, Liberty and Columbus (**Exhibit 1**).

The report examines the demographic and economic forces of change in the Gulf Coast region, as well as issues and trends in infrastructure, health care and education. We hope state leaders, county and city officials, chambers of commerce, economic development corporations and the general public will find this report useful as they work to keep local economies thriving.

Topics explored in this report include:

Economic Development

Gulf Coast regional employment rose by 11 percent between 2004 and 2009. The agriculture, natural resources and mining sector grew the most during this period, with employment rising by 30 percent.

In 2009, Gulf Coast employers provided a total of 2.6 million jobs. The largest sector, trade, transportation and utilities, provided 21 percent of all employment in the region. Although Hurricane Ike resulted in thousands of lost jobs and employment disruptions, businesses recovered with strong job growth in 2009.

The Houston-area economy is among the world's largest. In terms of gross product, the Houston economy alone stands 25th in the world, just behind Norway. Gross product for the Houston metropolitan area totaled \$435.9 billion in 2008.

Demographics

The Gulf Coast region is one of the state's most populous areas, anchored by Harris County, with 3,984,349 residents in 2008.

The Houston metro area experienced the nation's second-largest annual population increase from 2007 to 2008, adding 130,185 residents. The region experienced an influx of new residents in the year after Hurricane Katrina that pushed its total population up by 182,031, compared with an increase of 110,374 in the previous year.

In 2007, the Gulf Coast region's average personal income exceeded the state average by 24 percent, at \$45,968 versus \$37,083. And Houston-area metro counties exceeded the regional average. In particular, personal income in Harris County averaged \$49,634.

Infrastructure

The Houston area includes the headquarters of several major energy companies. The Energy Corridor west of downtown Houston is home to BP, CITGO, ExxonMobil, Shell and ConocoPhillips.

The Gulf Coast region also hosts NASA's Johnson Space Center (JSC), a complex that employs 3,400 civil servants and more than 13,000 contract employees. JSC supports the Houston area with an annual economic impact of \$3.5 billion and 35,000 total jobs.

Four ports in the region process a large share of U.S. exports and imports. In 2008, these ports accounted for 15 percent of the nation's oceangoing vessel calls and 5 percent of its waterborne foreign container shipments.

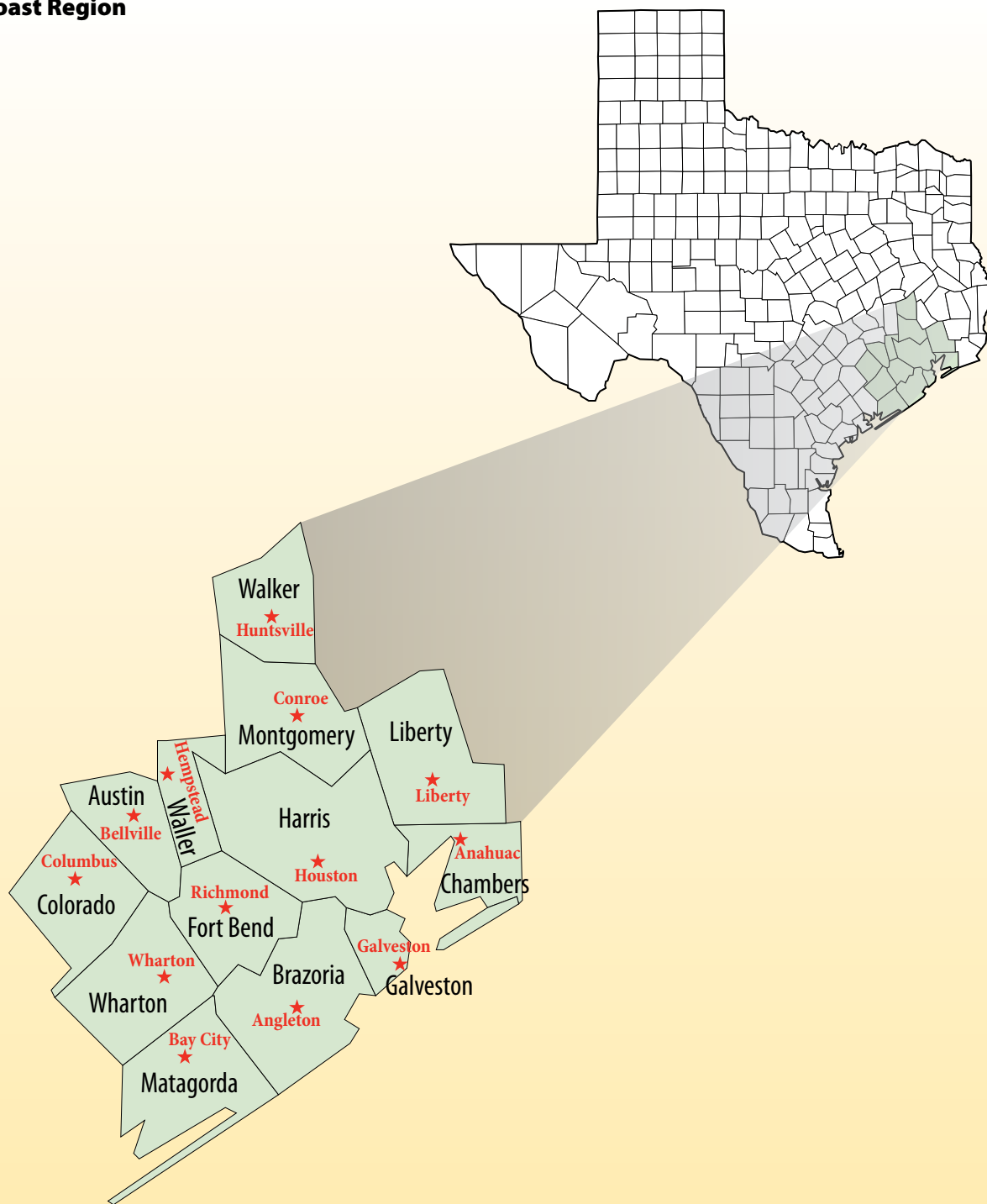
Health Care

The Gulf Coast region offers medical resources that attract patients and staff members from around the globe. Houston's Texas Medical Center employed 72,600 in 2008,



Exhibit 1

Gulf Coast Region



★ = County Seat

Source: Texas Comptroller of Public Accounts.



generating a regional economic impact of \$14 billion.

In terms of square footage, Texas Medical Center is the 12th largest business district in the U.S., larger than Los Angeles' downtown business district. Its M.D. Anderson Cancer Center consistently ranks as the nation's top cancer treatment center. The Medical Center has helped private health care employment reach all-time highs.

Education

With 1,535 public and charter schools, the Gulf Coast region educates about 25 percent of the state's public school students. Keeping pace with demographic changes, the region's

student population rose by 13.7 percent or 139,989 students from the 2002-03 to 2008-09 school years.

Higher education also plays an important role in the Gulf Coast economy, with 25 institutions of higher education including five health-related educational centers. Nine of the region's 13 counties offer campuses or facilities of higher education, led by Harris County with 16.

Recent enrollment growth in two-year higher educational programs outpaced that of public universities. From 2003 to 2008, fall enrollment at two-year public colleges rose by 14.6 percent, to 133,003 students, while public universities added 4.6 percent or 91,574 students.



Economic Development

The largely urban Gulf Coast region contains the Houston metropolitan area, one of the nation's largest. Long known as the energy capital of the world, Houston hosts the headquarters of several multinational energy companies, including Exxon-Mobil, Conoco-Phillips, Shell Oil and BP. In 2008, the Houston-Sugar Land-Baytown metropolitan statistical area's (MSA) gross product totaled \$435.9 billion. If Houston were a nation, its economy would be the 25th-largest in the world, just behind Norway.¹

The Port of Houston is the nation's busiest for foreign trade, transferring 155 million tons of goods worth \$114.8 billion in 2007.²

Areas outside of Houston also contribute to the region's economic success. The non-metro counties of Colorado, Matagorda, Walker and Wharton support a variety of industries including retail trade, healthcare, accommodations and food services, manufacturing and others.

Rural business activity from 2004 to 2009 was supported by strong growth in commercial banking, which grew 23 percent to add 150 jobs in Gulf Coast non-metro counties. Machinery manufacturing nearly tripled during that period, adding 410 jobs to Gulf Coast non-metro counties.

In late 2008, the region's coastal areas suffered employment losses from Hurricane Ike,

If Houston were a nation, its economy would be the 25th-largest in the world, just behind Norway.



ConocoPhillips Sweeny Refinery, Brazoria County

PHOTO: ConocoPhillips



with Galveston, Chambers and Matagorda counties losing a total of 5,040 jobs in the third and fourth quarters of that year. Harris County, slightly further from the coast, lost 4,866 jobs during the third quarter, while surrounding counties experienced less significant losses. Despite these declines, most counties in the region added jobs during the fourth quarter of 2008, giving the region a quarterly net gain of 20,459 jobs.³

Strong economic growth in the Gulf Coast region continues to outpace that of the state as a whole. Once resting almost solely on energy, the region's economy has become highly diversified. Jobs in business, construction and manufacturing, hospitality and international trade help to make the Gulf Coast's economy robust and competitive.

The area also boasts an impressive health care industry. The Texas Medical Center, located in Houston, is the world's largest medical campus, with 13 hospitals as well as academic institutions that offer training for careers in medicine, nursing, dentistry, public health and pharmacy. With these resources at its disposal, the region's health care services sector is poised for strong, continued growth over the next several years.⁴

Even as the region's economy diversifies, its traditionally profitable energy sectors continue to expand. Between 2002 and 2008, jobs in oil and gas extraction grew from 36,617 to 47,881, a 31 percent increase. The U.S. energy industry experienced a record-setting boom during these years; Texas, for its part, nearly tripled the number of oil and gas rigs operating in the state.

In mid 2008, oil prices began to plunge, falling nearly 47 percent between June 2008

and August 2009. Natural gas prices fell by 74 percent during these months. Between the energy sector decline and the broader national recession, the Gulf Coast economy lost more than 70,000 jobs between 2008 and 2009. Over the past few months, oil prices have bounced back, and the Comptroller projects that the Gulf Coast will gain jobs in 2010 and follow a growth path through 2014.⁵

Exhibit 2 illustrates Gulf Coast employment growth from 2004 to 2009 and projected growth from 2010 to 2014. The employment index shown measures percent growth by comparing average employment in a given year to employment in the base year of 2004; an index of 125, for instance, would mean that employment has risen by 25 percent since 2004.

The region as a whole experienced substantial employment growth between 2004 and 2009, with job gains of 11 percent, outpacing the state's growth rate of 10 percent. After a dip due to the recession, the Comptroller expects that the region's job growth will continue to rise faster than the state's. The Houston-Sugar Land-Baytown MSA is on pace with the region as a whole, with expected annual employment growth of 2.6 percent from 2009 to 2014.⁶

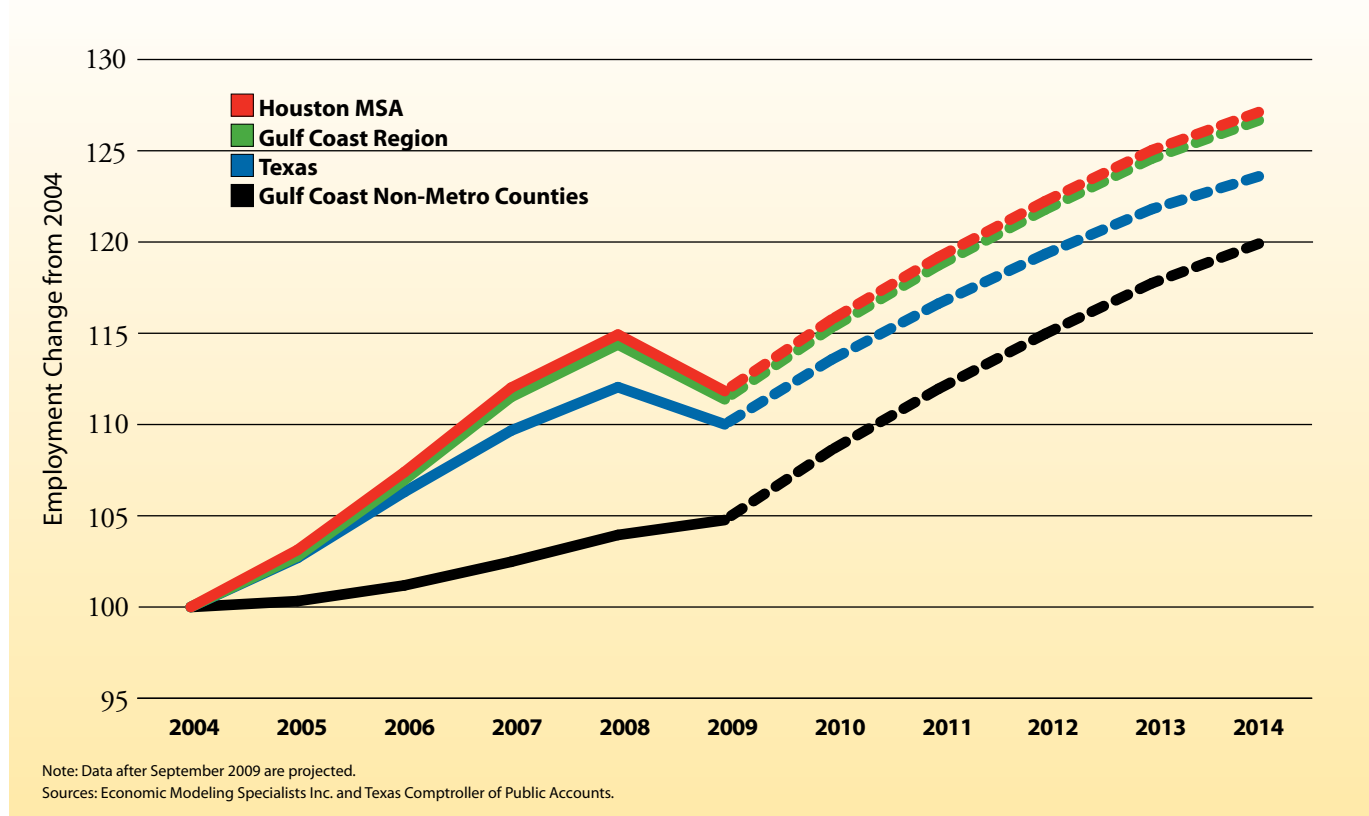
Growth by Industry

In 2009, Gulf Coast region employers provided a total of 2.6 million jobs, representing nearly a quarter of the jobs in Texas. Twenty-one percent of these were in the trade, transportation and utilities sector, the largest in the region. **Exhibit 3** provides a detailed picture of projected employment trends in

The Texas Medical Center, located in Houston, is the world's largest medical campus, with 13 hospitals as well as academic institutions that offer training for careers in medicine, nursing, dentistry, public health and pharmacy.



Exhibit 2

Gulf Coast Region Employment Indices, 2004-2014

the region, with growth indices for various industries again using 2004 as the base year. Employment for these industries is presented at the 11-industry “supersector” level of the North American Industry Classification System (NAICS).⁷

A supersector, as identified by a two-digit NAICS code, represents an aggregation of industries producing related goods and services. At this level, industries are classified into either goods-producing or service-producing supersectors.

The goods-producing group comprises three supersectors — 1) agriculture, natural resources and mining; 2) construction; and 3) manufacturing. The service-producing

group comprises eight supersectors including education and health; professional and business services; leisure and hospitality; finance; trade, transportation and utilities; other services; government; and information.

With the exception of the information supersector, all of these groups have seen job growth since 2004 and should continue to do so through 2014. Agriculture, natural resources and mining should be the fastest-growing industry, with an estimated 16 percent increase in employment by 2014, from 98,706 in 2009 to 114,501 jobs.

The vast majority of growth in this supersector is due to new jobs in oil and gas well

(text continued on Page 11)



Hurricane Ike

Hurricane Ike was among the most destructive storms to ever hit the Gulf Coast region, making landfall on the Texas coast on September 13, 2008 with maximum sustained winds near 110 mph. Hurricane-force winds spanned 120 miles from the storm's center, with tropical storm winds extending up to 275 miles. The entire region was affected.⁸

Governor Perry declared all of the region's counties disaster areas, and the federal government declared all but one as eligible for individual and public assistance.

Since recovery efforts began, the Federal Emergency Management Agency (FEMA) has earmarked \$2.5 billion in assistance to Texas and its residents, although Ike's damage estimates exceed that figure substantially.⁹

The Galveston Bay area, including Harris, Galveston and Chambers counties, sustained heavy damage. More than 81,000 households received 10 feet of storm surge water, affecting about 205,000 residents. In Galveston County, an estimated 53,000 jobs were disrupted or lost, many associated with damage to the University of Texas Medical Branch facility.

UT's medical school lost 3,800 jobs due to extensive indoor flooding. About 1.3 million jobs were disrupted or lost in Harris County, many because of electricity outages lasting a month after the storm. Large areas of Chambers County received 20 feet of storm surge water, resulting in the loss of more than 143,000 agricultural acres, as well as disruptions in fishing, tourism and petrochemical manufacturing.¹⁰ The Texas Workforce Commission's Disaster Unemployment Assistance program provided relief to workers whose jobs were lost or disrupted.¹¹

Ike contributed to an existing housing shortage throughout the region. In Harris, Galveston and Chambers counties, 12,671 properties sustained at least \$8,000 worth of damage and 3,055 were destroyed, 73 percent of them in Galveston County. In the affected parts of Texas, FEMA has provided housing for 3,647 individuals and households displaced by the storm; of those displaced, 1,510 have transitioned to permanent housing. FEMA also has provided \$355 million in hazard mitigation funding for projects to acquire or remediate homes that suffered extensive damage.¹²

The Texas Department of Transportation estimates that Texas roads and bridges suffered \$131.8 million worth of damage, including expenditures for debris cleanup. Estimates for port remediation, mostly in Galveston and Houston, total \$2.4 billion, including erosion control, waterway dredging and repairs to waterways, ports and coastlines. Estimates of damage to critical infrastructure total \$1.8 billion for repairs to electricity, gas and water distribution facilities, water supply storage and facilities for education, public transportation and public safety services. FEMA has contributed \$1.3 billion in funding for debris removal, roads and bridges, public buildings, utilities and parks.¹³

Local governments throughout the region expected significant reductions in sales tax revenue from decreased business activity. Local government revenue



Seawall damage after Hurricane Ike, Galveston

PHOTO: Texas General Land Office



After completion of recovery work from Hurricane Ike, Galveston

PHOTO: Texas General Land Office

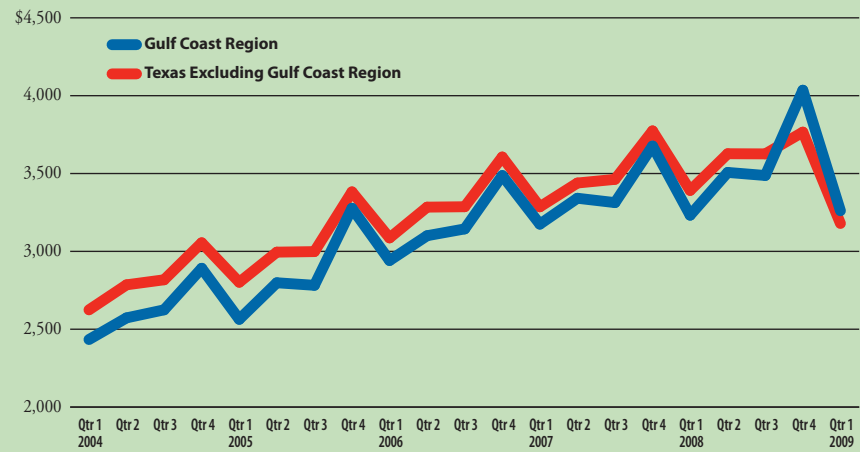


Hurricane Ike (cont.)

remained strong, however, outpacing recent quarterly and seasonal growth, supported by infusions of state and federal relief spending as well as an influx of relief workers who boosted retail sales.

The following table compares per capita taxable sales in the Gulf Coast region to the rest of Texas. Although Hurricane Ike occurred in the end of 2008's third quarter, quarterly sales in the Gulf Coast region surpassed the rest of Texas in the next quarter as the state entered a national recession.¹⁴

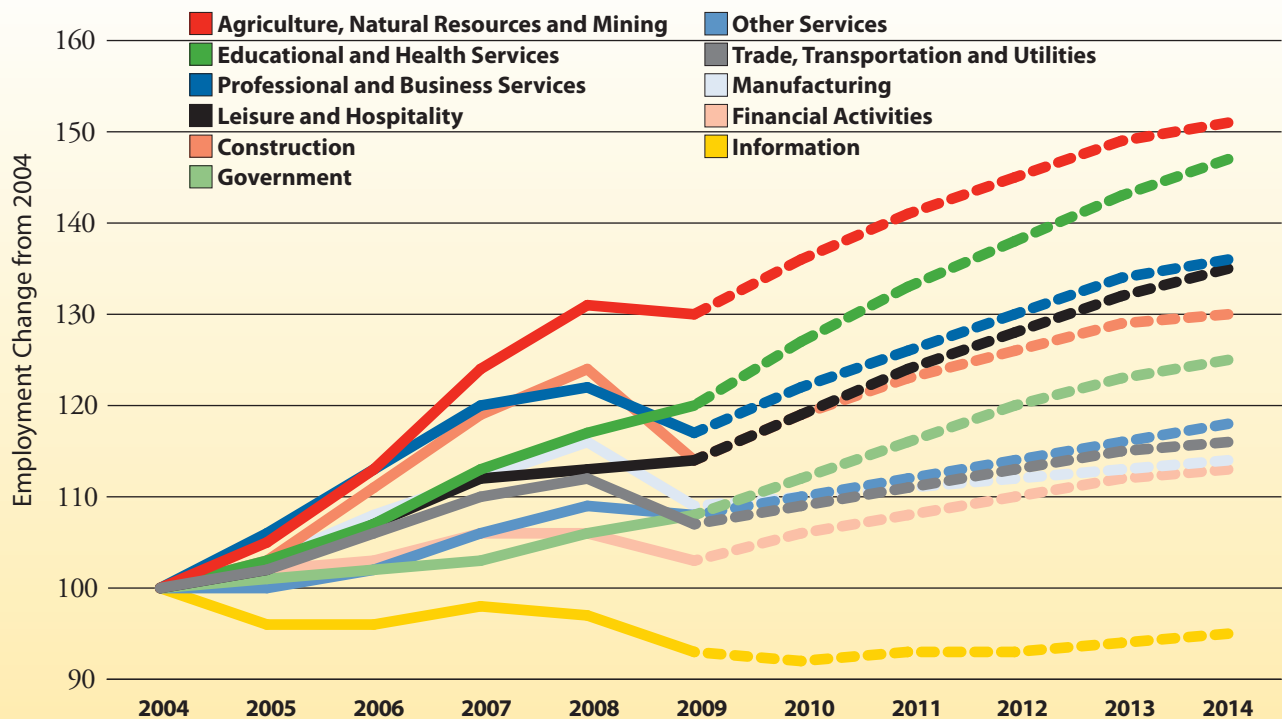
Per Capita Taxable Sales



Source: Texas Comptroller of Public Accounts.

Exhibit 3

Gulf Coast Region Industrial Employment Indices, 2004-2014



Note: Data after September 2009 are projected.

Sources: Economic Modeling Specialists Inc. and Texas Comptroller of Public Accounts.



Agriculture

The Gulf Coast region's agriculture industry utilizes the region's natural resources to produce crops and livestock. Some of the region's primary agricultural goods include nursery crops, poultry, beef, feed crops and rice. The region's proximity to the Gulf of Mexico makes it an ideal location for shrimp and fish farming, and the region's forests provide a strong timber crop.

In 2008, the Gulf Coast region produced crops, livestock and other agricultural goods worth \$1.69 billion. Crops represented 64 percent of this production, while livestock accounted for 26 percent, and other agriculture related products represented 10 percent. Most of the region's crop sales come from nursery crops, with regional leader Harris County yielding \$287 million of nursery crops in 2008. Wharton County produced the most livestock, with poultry accounting for 73 percent of county production.

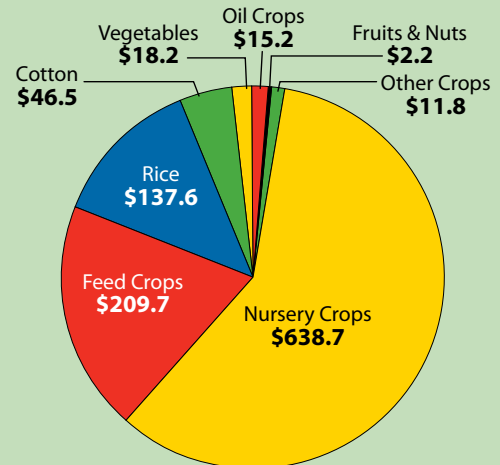
The state's top three rice producing counties – Wharton, Colorado and Matagorda – are located in the Gulf Coast region. In 2008, farmers in the region planted 138,400 rice acres, accounting for 79 percent of total rice acreage in Texas. That year, Gulf Coast counties produced 9.6 hundredweight (cwt), or 963.4 million pounds of rice. This substantial amount of production represented 81 percent of the state's total 2008 rice production.

Agriculture related products such as timber and aquaculture are important features of the Gulf Coast.

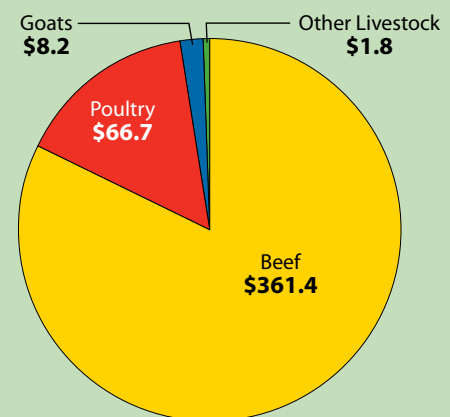
Liberty, Walker and Montgomery Counties specialize in timber, together producing \$55 million in 2008. Other counties in the region supply timber as well, bringing the 2008 regional timber total to \$64 million.

The region also boasts a strong aquaculture industry which produces and sells fish, shrimp and other types of seafood. According to data from the USDA Census of Agriculture, in 2007 Matagorda County alone produced 45 percent of the state's catfish sales and 40 percent of the state's total aquaculture sales. Wharton County produced catfish worth another 21 percent of Texas catfish sales that year. Because census data for some individual counties are kept confidential, it is difficult to fully measure the region's contributions to the Texas aquaculture industry. Even so, it is apparent that the Gulf Coast makes a large impact, with 28 percent of the state's catfish farms and 29 percent of the state's shrimp farms located in the region.¹⁵

Commodity Shares of Gulf Coast Region Crops, 2008 (in million \$)



Commodity Shares of Gulf Coast Region Livestock, 2008 (in million \$)



Note: Graphs do not include agriculture related products, valued at \$175.1 million in 2008.
Source: Texas Department of Agriculture.



Rice Harvest, Fort Bend County

PHOTO: Texas Department of Agriculture



drilling, oil and gas extraction and support activities. For example, jobs in the region's support activities for oil and gas operations should rise from 25,523 to 31,149 between 2009 and 2014, a 22 percent increase. Significant growth in these occupations highlights the region's continued strength as an energy hub.

Educational and health services are also expanding dramatically, with an expected employment increase of 23 percent from 2009 to 2014, from 276,400 to 338,977 jobs. Health care services employment is expanding across the board, accounting for 90 percent of the supersector's growth during this period.

The fastest-growing health care group is ambulatory health care services, which should have 25 percent more jobs by 2014. This field, which includes physician and dentist offices, outpatient care centers, medical and diagnostic laboratories and home health care services, should employ 148,349 in 2014 versus 118,745 in 2009.

Within education, jobs at junior colleges will lead the way. The Comptroller estimates that employment in this category will rise by 50 percent over 2009-2014.

Employment in four other industries — professional and business services, leisure and hospitality, construction and government — should rise by more than 10 percent over this period. Within these categories, the fastest-growing occupation areas are business management, food and drink services, heavy and civil engineering construction and local government, respectively.

Trade, transportation and utilities, the region's largest industry by far, should see

employment rise by 9 percent, from 538,513 to 587,324 jobs. Most of these gains will be in wholesale and retail trade.

Other major industries that should experience moderate job gains through 2014 include other services, manufacturing and financial activities.

Economic Structure

Job growth depends upon a region's underlying economic structure. That structure includes multiple factors including natural resources, labor force characteristics and the composition and concentration of the region's industries.

This latter characteristic, also called *clustering*, is particularly important since industry clusters give firms within them access to more suppliers and a pool of skilled laborers with valuable knowledge and information.¹⁶ The benefits that result from high industry concentrations give a region its competitive edge.¹⁷

One tool that can be used to identify industry concentration is the "location quotient." The location quotient identifies industry concentrations by comparing the share of a region's economy attributable to a specific industry to the share that same industry accounts for in the nation's economy.

In essence, the share an industry accounts for in the national economy is seen as the "norm" for that industry, so comparing that norm with its share of a regional economy indicates whether that region tends to have "a lot" or "a little" of a particular industry. Typically, a region will contain "a lot" of industries for which it has some natural or developed competitive advantage, based for instance on a local abundance of a particular



resource, a favorable climate, an advantageous natural feature (such as proximity to a port), a highly educated labor force or some other factor.

A location quotient greater than one indicates a high regional employment concentration in an industry compared to the same industry at the national level. This means that the region is “more specialized” in that particular industry. A location quotient of less than one indicates that the region’s concentration in the industry is less than the nation’s. In essence, the region is less specialized in that industry.

Exhibit 4 lists the 50 most concentrated industries in the Gulf Coast region, grouped according to their respective NAICS supersectors and ranked from the highest to lowest location quotient within each supersector.¹⁸ Location quotients range from 3.29 all the way up to 26.83, indicating that these regional industries are highly concentrated compared to the nation as a whole — even the least concentrated industry on this list, other nonresidential exterior contractors, is 3.29 times more concentrated in the Gulf Coast region than in the rest of the nation.

Many of the region’s most specialized industries are energy-related; jobs in oil and gas extraction, oil and gas machinery and equipment and pipeline transportation of oil and natural gas all have location quotients higher than 10. Oil and gas field machinery and equipment is the region’s most concentrated industry; the region’s share of these jobs is 26.83 times more concentrated than the nation’s.

Other regional industries are strong as well. Manufacturing jobs play a prominent

role, with 24 of the top 50 most concentrated industries related to manufacturing. Petrochemical manufacturing, for example, has a location quotient of 23.27. Businesses in the region manufacture a wide range of products, from dyes and pigments to plastics and computers, making for a manufacturing cluster that is both concentrated and multi-layered.

Transportation and trade-related industries are also well represented in the region; 14 of the 50 listed industries fall under the transportation, trade and utilities supersector. With high volumes of freight traffic coming in and out of the region’s ports, it is no surprise that industries such as marine cargo handling and deep-sea freight transportation are highly concentrated along the Gulf Coast.

Most Competitive Industries

While location quotients provide important information on regional industry concentrations, they offer only a snapshot — a static measure at a particular point in time. To assess the competitive resilience of a regional industry, a more dynamic measure is needed. One such measure is “shift-share analysis.”

In this analysis, the change in an industry’s regional presence is divided into three components: the portion attributable to the overall growth or decline in the nation’s economy (the national growth effect); that attributable to the difference between the national trend for an industry and the national trend for all industries (the industry mix effect); and that attributable to the region’s competitiveness as a site for the industry (the regional competitiveness effect).

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Oil and gas field machinery and equipment is the region’s most concentrated industry; the region’s share of these jobs is 26.83 times more concentrated than the nation’s.



Exhibit 4

Gulf Coast Region's Largest Industry Location Quotients, 2009***Agriculture, Natural Resources and Mining***

NAICS Code	Description	2009 Jobs	2009 Location Quotient
211112	Natural gas liquid extraction	2,321	21.84
211111	Crude petroleum and natural gas extraction	46,604	14.93
213111	Drilling oil and gas wells	18,245	11.30
213112	Support activities for oil and gas operations	25,523	6.39
212393	Other chemical and fertilizer mineral mining	227	3.88

Construction

NAICS Code	Description	2009 Jobs	2009 Location Quotient
237120	Oil and gas pipeline construction	16,474	8.17
236210	Industrial building construction	21,457	6.45
237990	Other heavy construction	6,806	3.45
238192	Other nonresidential exterior contractors	1,871	3.29

Manufacturing

NAICS Code	Description	2009 Jobs	2009 Location Quotient
333132	Oil and gas field machinery and equipment	30,353	26.83
325110	Petrochemical manufacturing	12,029	23.27
324110	Petroleum refineries	13,093	9.06
332911	Industrial valve manufacturing	3,518	7.77
332996	Fabricated pipe and pipe fitting manufacturing	3,992	7.31
325193	Ethyl alcohol manufacturing	1,314	7.30
325120	Industrial gas manufacturing	2,363	6.74
325192	Cyclic crude and intermediate manufacturing	173	6.64
311212	Rice milling	510	6.15
325132	Synthetic organic dye and pigment manufacturing	701	5.71
325211	Plastics material and resin manufacturing	5,505	4.98
332313	Plate work manufacturing	4,385	4.88
332311	Prefabricated metal buildings and components	2,889	4.79
325181	Alkalies and chlorine manufacturing	747	4.75
325998	Other miscellaneous chemical product manufacturing	3,332	4.74
335313	Switchgear and switchboard apparatus manufacturing	2,760	4.66
325199	All other basic organic chemical manufacturing	3,041	4.54
332811	Metal heat treating	1,402	4.33
326122	Plastics pipe and pipe fitting manufacturing	2,272	4.16
332111	Iron and steel forging	1,826	4.05



Exhibit 4 (cont.)

Gulf Coast Region's Largest Industry Location Quotients, 2009

NAICS Code	Description	2009 Jobs	2009 Location Quotient
334111	Electronic computer manufacturing	7,176	4.05
331222	Steel wire drawing	640	4.04
325182	Carbon black manufacturing	122	3.63
339991	Gasket, packing, and sealing device manufacturing	1,953	3.31

Trade, Transportation and Utilities

NAICS Code	Description	2009 Jobs	2009 Location Quotient
486110	Pipeline transportation of crude oil	2,680	15.96
486210	Pipeline transportation of natural gas	5,698	11.05
488320	Marine cargo handling	6,338	7.58
483111	Deep sea freight transportation	1,399	6.73
221111	Hydroelectric power generation	4,968	6.53
486990	All other pipeline transportation	55	6.33
221119	Other electric power generation	1,180	5.85
481211	Nonscheduled air passenger chartering	3,284	5.11
488330	Navigational services to shipping	1,554	4.24
483211	Inland water freight transportation	1,549	4.07
488991	Packing and crating	1,410	3.98
488390	Other support activities for water transportation	639	3.43
423830	Industrial machinery merchant wholesalers	19,926	3.38
423520	Coal and other mineral merchant wholesalers	155	3.31

Information

NAICS Code	Description	2009 Jobs	2009 Location Quotient
517910	Other telecommunications	615	4.42

Financial Activities

NAICS Code	Description	2009 Jobs	2009 Location Quotient
532412	Other heavy machinery rental and leasing	4,271	3.97

Professional and Business Services

NAICS Code	Description	2009 Jobs	2009 Location Quotient
541360	Geophysical surveying and mapping services	4,770	13.87

Source: Economic Modeling Specialists Inc.



Exhibit 5 lists the Gulf Coast region's most competitive industries based on shift-share analysis. The industries are ranked based on their employment change in the regional competitiveness component (and thus the industry's comparative advantage in the region) between 2004 and 2009.

Temporary help services in the professional and business sector ranked highest in the regional competitive effect but experienced a national decline relative to other industries. Local government, which includes public schools, experienced the most growth of any

(text continued on Page 17)

Exhibit 5

Gulf Coast Region, Most Competitive Industries, 2004-2009

Description	Supersector	National Growth Effect	Industry Mix Effect	Regional Competitive Effect	Job Change
Temporary help services	Professional and Business Services	297	(11,592)	12,086	791
Local government	Government	1,586	9,202	9,157	19,945
Full-service restaurants	Leisure and Hospitality	485	5,198	6,748	12,431
Limited-service restaurants	Leisure and Hospitality	385	3,937	6,102	10,424
Offices of physicians, except mental health	Educational and Healthcare Services	210	3,949	5,126	9,285
Office administrative services	Professional and Business Services	72	2,437	4,752	7,261
Oil and gas pipeline construction	Construction	52	3,934	4,346	8,332
Discount Department Stores	Trade, Transportation and Utilities	58	357	4,110	4,525
Managing offices	Financial Activities	66	861	3,837	4,764
Industrial machinery merchant wholesalers	Trade, Transportation and Utilities	103	(60)	3,814	3,857
Employment placement agencies	Professional and Business Services	59	(1,085)	3,555	2,529
Engineering services	Professional and Business Services	236	3,849	3,484	7,569
Home health care services	Educational and Healthcare Services	170	8,016	3,243	11,429
Supermarkets and other grocery stores	Trade, Transportation and Utilities	266	448	3,011	3,725
Physical, engineering and biological research	Professional and Business Services	31	664	2,946	3,641
Commercial building construction	Construction	94	150	2,890	3,134
New car dealers	Trade, Transportation and Utilities	134	(3,909)	2,782	(993)
Oil and gas field machinery and equipment	Manufacturing	128	7,485	2,754	10,367



Exhibit 5 (cont.)

Gulf Coast Region, Most Competitive Industries, 2004-2009

Description	Supersector	National Growth Effect	Industry Mix Effect	Regional Competitive Effect	Job Change
Nonresidential drywall contractors	Construction	43	(744)	2,682	1,981
Scheduled passenger air transportation	Trade, Transportation and Utilities	131	(2,269)	2,485	347
Machine shops	Manufacturing	37	116	2,403	2,556
Water and sewer system construction	Construction	45	(624)	2,125	1,546
Security guards and patrol services	Professional and Business Services	81	1,423	2,003	3,507
General medical and surgical hospitals	Educational and Healthcare Services	368	4,780	1,887	7,035
Power and communication system construction	Construction	16	303	1,871	2,190
Professional employer organizations	Professional and Business Services	26	(1,759)	1,725	(8)
All other nonresidential trade contractors	Construction	38	(424)	1,656	1,270
Light truck and utility vehicle manufacturing	Manufacturing	8	(580)	1,652	1,080
Federal government, civilian, except postal service	Government	106	1,182	1,632	2,920
Plate work manufacturing	Manufacturing	17	52	1,588	1,657
State government	Government	494	1,834	1,532	3,860
Administrative management consulting services	Professional and Business Services	35	1,610	1,503	3,148
All other general merchandise stores	Trade, Transportation and Utilities	36	186	1,486	1,708
Fabricated structural metal manufacturing	Manufacturing	16	9	1,421	1,446
Commercial machinery repair and maintenance	Other Services	42	937	1,394	2,373
Marine cargo handling	Trade, Transportation and Utilities	32	(18)	1,355	1,369
Wholesale trade agents and brokers	Trade, Transportation and Utilities	69	2,491	1,343	3,903
Other chemicals merchant wholesalers	Trade, Transportation and Utilities	33	(54)	1,328	1,307



Exhibit 5 (cont.)

Gulf Coast Region, Most Competitive Industries, 2004-2009

Description	Supersector	National Growth Effect	Industry Mix Effect	Regional Competitive Effect	Job Change
Nonresidential plumbing and HVAC contractors	Construction	56	294	1,258	1,608
Other management consulting services	Professional and Business Services	18	228	1,256	1,502
Hotels and motels, except casino hotels	Leisure and Hospitality	125	(488)	1,254	891
New single-family general contractors	Construction	48	(2,322)	1,254	(1,020)
Petrochemical manufacturing	Manufacturing	80	(1,722)	1,238	(404)
Other credit intermediation activities	Financial Activities	8	(102)	1,221	1,127
Switchgear and switchboard apparatus mfg.	Manufacturing	11	(133)	1,208	1,086
Other heavy construction	Construction	35	93	1,192	1,320
Nonresidential poured foundation contractors	Construction	22	220	1,184	1,426
Nursing care facilities	Educational and Healthcare Services	86	407	1,125	1,618
Pharmacies and drug stores	Trade, Transportation and Utilities	66	585	1,109	1,760
Highway, street and bridge construction	Construction	60	(1,242)	1,095	(87)

Sources: Economic Modeling Specialists Inc. and Texas Comptroller of Public Accounts.

industry during this period, gaining 19,945 jobs, or 8 percent, overall. Growth in the industry reflects rapid population growth; the Gulf Coast's population rose by 10 percent between 2004 and 2008, compared with a statewide rise of 8.5 percent and national growth of only 5.2 percent.¹⁹

Local government also ranked second-highest according to the regional competitive effect, with a gain of 9,157. The regional competitive effect accounted for almost half of the industry's growth during this time, indicating that economic conditions unique to the region spurred sector growth.

The Gulf Coast region experienced considerable job growth in professional and business services between 2004 and 2009. Nine of the 50 most competitive professions fall under this supersector. Local factors such as favorable wage rates likely contributed to job growth in professional and business services.

Jobs in trade, transportation and utilities also have a strong comparative advantage in the Gulf Coast, with ten of the professions on this list belonging to these industries. Educational and health services and energy, construction and manufacturing also draw



workers to the Gulf Coast region, giving it a competitive edge in these sectors.

Exhibit 6 lists the five most competitive industries in the Houston MSA and the region's non-metro counties.

Good Jobs for the Future

Shift-share analysis identifies the region's most competitive industries — those that possess the best chances for increased employment opportunities. But what types of occupations can Gulf Coast residents expect to find within these industries? **Exhibit 7** presents a list of “good jobs” for the region's

future, grouping them based on their educational requirements.

For the purpose of this analysis, a “good job” is one for which average annual earnings, as reported by the Texas Workforce Commission, exceed the state's 2008 average per capita personal income of \$37,774.²⁰ In the Gulf Coast region, 376 occupations pay more than this amount.

Occupations requiring both a college degree and work experience command the highest annual earnings, with weighted average earnings of \$109,466 for the region. Occupations requiring doctoral or professional degrees

Brahman Cattle: Pride of the Gulf Coast

Long a staple of rodeo bull riding contests, Brahman cattle breeds are popular along the Texas Gulf Coast for their resistance to Texas sun, heat and humidity, insects and eye diseases. The breeds' distinctive shoulder humps, banana-shaped horns, large pendulous ears and neck-to-shoulder dewlaps appear threatening, hence the bulls' popularity in rodeos — but these appearances belie their gentle nature.

Texas ranchers began importing Brahman bulls in the mid-19th century from India and Brazil (where they are called Zebu), based upon the animals' reputation for thriving in hot, humid climates. Before long, ranchers were crossbreeding Brahman with other popular breeds imported from colder climes to create a meatier animal well suited to the Gulf climate.

For example, Brahman bred with Black Angus from Scotland created the Brangus breed. Braford's are the product of breeding Brahman with red and white English Hereford cattle. Crossbreeding Brahman, Hereford and the English Shorthorn breed created the Beefmaster breed. Even the Santa Gertrudis breed made famous by the King Ranch in South Texas is three-eighths Brahman and five-eighths Shorthorn.

Several ranches in the region have a long, proud tradition of raising Brahman and Brahman-cross cattle. The J.D. Hudgins Ranch in Wharton County traces its roots back to 1908 and has produced generations of stock show grand champions.

Many other quality Brahman breeders may be found in the Gulf Coast region, including the Caballo Rojo Ranch in Hempstead (Waller County), Fenn Brahman's in Sweeny (Brazoria County), HK Cattle in Rosharon (Brazoria County), the Heritage Cattle Company in Hungerford (Wharton County), Ken Ramsey Brahman's in Cat Spring (Austin County), the OB Ranch in Wharton (Wharton County), the Stargate Ranch in Brazoria (Brazoria County) and the V8 Ranch in Boling (Wharton County).²¹



Exhibit 6

Gulf Coast Region, Five Most Competitive Industries by Area**Houston MSA**

Description	Supersector	National Growth Effect	Industry Mix Effect	Regional Competitive Effect	Job Change
Temporary help services	Professional and Business Services	296	(11,578)	12,029	747
Local government	Government	1,532	8,888	9,288	19,708
Full-service restaurants	Leisure and Hospitality	474	5,089	6,849	12,412
Limited-service restaurants	Leisure and Hospitality	373	3,818	5,949	10,140
Offices of physicians, except mental health	Educational and Healthcare Services	205	3,856	5,181	9,242

Non-Metro Counties

Description	Supersector	National Growth Effect	Industry Mix Effect	Regional Competitive Effect	Job Change
State government	Government	65	242	666	973
Oil and gas field machinery and equipment	Manufacturing	0	19	211	230
Construction sand and gravel mining	Agriculture, Natural Resources and Mining	0	(9)	191	182
Nuclear electric power generation	Trade, Transportation and Utilities	7	3	179	189
Other building material dealers	Trade, Transportation and Utilities	1	(32)	159	128

Sources: Economic Modeling Specialists, Inc. and Texas Comptroller of Public Accounts.

provide the second-highest earnings, with weighted average earnings of \$107,258. Occupations requiring a master's degree ranked third, with a weighted average of \$74,172.

Bachelor's degree occupations offer weighted average earnings of \$69,635, while associate degree occupations have weighted average earnings of \$57,888. Many occupations in the Gulf Coast region requiring an associate degree, however, compare favorably with those requiring a bachelor's degree (without work experience).

It should be noted that many of the region's occupations that meet the "good jobs" definition do not require a college degree. A number that require related work experience, on-the-job-training or postsecondary vocational training also provide good wages. Jobs requiring moderate-term on-the-job training but no postsecondary education provide weighted average earnings of \$52,292. Occupations requiring postsecondary vocational

(text continued on Page 37)



Retail

The Gulf Coast region offers spectacular retail shopping. Houston's Galleria features an assortment of upscale stores offering brands such as Steve Madden, Yves Saint Laurent and Gucci. The Galleria also features a number of programs designed for fashion enthusiasts and young adults.

Rice Village is a shopping destination surrounding Rice University in Houston. It features a unique collection of more than 300 boutiques and eclectic shops in the immediate area, along with a host of dining opportunities.

Although Hurricane Ike heavily damaged Galveston's downtown Strand District and Seawall Boulevard, many businesses have returned to these areas. Visitors can see the downtown district's many Victorian-era buildings that now host antique shops and eateries. The shops along Seawall Boulevard cater to beachgoers seeking sunglasses, sunscreen and surf gear. The surrounding area also features a number of spas for visitors seeking a relaxing massage or facial.

Historic Montgomery began as a trading post in 1826. Today, its downtown offers a unique shopping experience with shops featuring clothing, crafts, collectibles and furniture. While there, visit Garrett Cottage Antiques featuring antique pottery, furniture and glass art, or Front Porch Friends, which offers unique gifts and books as well as gourmet foods and candles. Huntsville in Walker County also features a number of crafts and antiques shops along with a full-service shopping mall.²²

The Gulf Coast region's retail establishments generated \$86.4 billion in gross sales in 2008. Of that amount, \$33.3 billion, or 38.5 percent, was subject to state sales tax. Harris County accounted for 72.4 percent of the total taxable sales in the region at \$24.1 billion. The region had 272,171 retail employees in 2008 earning total wages of \$7.5 billion. Almost 73 percent of these employees were in Harris County where \$5.6 billion of the total wages were paid.

Retail Sales, Tax Revenue, and Wage Figures, Gulf Coast Region, 2008

County	Gross Sales, 2008	Amount Subject to State Tax, 2008	State Sales Tax Revenue, 2008	Employees, 2008	Retail Total Wages, 2008
Austin	\$2,378,720,260	\$93,703,329	\$5,856,458	1,805	\$51,683,794
Brazoria	3,140,693,964	1,483,367,678	92,710,480	11,858	286,457,565
Chambers	1,398,486,624	88,696,044	5,543,503	847	24,689,739
Colorado	268,958,150	69,909,813	4,369,363	834	18,864,746
Fort Bend	6,411,390,246	2,320,069,038	145,004,315	17,727	453,718,403
Galveston	2,973,274,750	1,478,170,036	92,385,627	11,400	281,534,692
Harris	58,095,979,469	24,086,870,092	1,505,429,381	198,293	5,644,074,306
Liberty	1,885,261,586	258,370,911	16,148,182	3,149	71,657,069
Matagorda	356,690,753	134,048,159	8,378,010	1,398	29,289,461
Montgomery	7,506,383,112	2,727,350,004	170,459,375	19,105	479,647,657
Walker	808,148,153	229,390,227	14,336,889	2,383	50,350,998
Waller	597,954,111	109,715,330	6,857,208	1,343	41,704,486
Wharton	580,452,962	182,606,840	11,412,928	2,029	48,798,380
Total	\$86,402,394,140	\$33,262,267,501	\$2,078,891,719	272,171	\$7,482,471,296

Sources: Texas Comptroller of Public Accounts and Texas Workforce Commission.



Exhibit 7

Gulf Coast Region, "Good Jobs," 2009-2014***Doctoral and First Professional Degree***

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Oral and maxillofacial surgeons	58	64	6	6	12	\$206,378
Orthodontists	101	109	8	10	18	180,856
Dentists, general	1,183	1,295	112	116	228	158,454
Dentists, all other specialists	53	58	5	5	10	149,032
Podiatrists	62	69	7	11	18	146,453
Physicians and surgeons	10,391	12,751	2,360	937	3,297	144,435
Lawyers	9,401	10,550	1,149	891	2,040	135,928
Physicists	120	134	14	15	29	114,358
Optometrists	467	584	117	40	157	109,366
Pharmacists	5,427	6,464	1,037	470	1,507	102,211
Computer and information scientists, research	308	350	42	41	83	100,610
Astronomers	52	59	7	6	13	99,549
Veterinarians	873	1,061	188	86	274	97,552
Mathematicians	28	32	4	3	7	93,309
Postsecondary teachers	24,081	29,788	5,707	2,013	7,720	88,055
Biochemists and biophysicists	133	148	15	14	29	85,322
Chiropractors	216	266	50	12	62	64,459
Clinical, counseling, and school psychologists	1,024	1,219	195	79	274	61,610
Audiologists	175	205	30	10	40	57,512
Microbiologists	94	104	10	10	20	56,389
Medical scientists, except epidemiologists	2,894	3,430	536	448	984	51,085
Total	57,141	68,740	11,599	5,223	16,822	
Weighted Average Annual Earnings						\$107,258

Master's Degree

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Geoscientists, except hydrologists and geographers	5,219	6,185	966	675	1,641	\$132,600



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Economists	113	131	18	17	35	87,942
Environmental scientists and specialists, including health	1,884	2,246	362	244	606	84,323
Hydrologists	51	61	10	7	17	78,187
Physical therapists	2,130	2,612	482	128	610	77,522
Statisticians	149	169	20	23	43	73,736
Psychologists, all other	127	148	21	10	31	73,632
Operations research analysts	1,212	1,345	133	122	255	72,654
Social scientists and related workers, all other	133	153	20	21	41	72,634
Industrial-organizational psychologists	30	38	8	2	10	69,139
Occupational therapists	1,346	1,635	289	99	388	67,309
Speech-language pathologists	2,038	2,372	334	197	531	65,811
Mathematical scientists, all other	48	62	14	6	20	63,398
Historians	14	16	2	2	4	61,069
Instructional coordinators	1,679	2,072	393	115	508	60,653
Urban and regional planners	471	565	94	70	164	60,216
Sociologists	25	30	5	2	7	57,242
Political scientists	27	31	4	4	8	57,096
Educational, vocational, and school counselors	4,519	5,315	796	448	1,244	53,622
Anthropologists and archeologists	36	43	7	6	13	53,310
Counselors, all other	1,561	1,824	263	155	418	52,957
Archivists	31	36	5	7	12	52,229
Librarians	2,424	2,765	341	328	669	51,563
Epidemiologists	64	77	13	10	23	50,690
Curators	128	150	22	28	50	49,837
Health educators	1,074	1,298	224	62	286	46,550
Museum Technicians and Conservators	266	309	43	58	101	45,677
Mental health counselors	944	1,138	194	94	288	41,038
Rehabilitation counselors	506	591	85	50	135	38,355
Total	28,249	33,417	5,168	2,990	8,158	
Weighted Average Annual Earnings						\$74,172



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014***Degree plus work experience***

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Chief executives	3,594	3,903	309	491	800	\$187,617
Engineering managers	4,530	5,019	489	459	948	137,862
Marketing managers	2,351	2,636	285	261	546	127,400
Sales managers	5,555	6,197	642	617	1,259	123,219
Financial managers	7,676	8,667	991	558	1,549	122,803
Computer and information systems managers	4,554	5,164	610	368	978	121,971
Natural sciences managers	504	563	59	55	114	120,848
General and operations managers	40,974	44,180	3,206	4,939	8,145	117,146
Human resources managers, all other	542	621	79	51	130	111,821
Public relations managers	670	768	98	78	176	108,514
Purchasing managers	1,283	1,423	140	184	324	106,746
Education administrators, postsecondary	733	875	142	102	244	106,417
Compensation and benefits managers	891	1,012	121	84	205	101,982
Training and development managers	454	529	75	43	118	94,494
Administrative services managers	5,853	6,665	812	774	1,586	93,558
Administrative law judges, adjudicators, and hearing officers	170	193	23	16	39	91,484
Actuaries	108	126	18	19	37	86,819
Medical and health services managers	4,816	5,790	974	450	1,424	84,094
Art directors	303	335	32	35	67	83,221
Management analysts	9,794	11,732	1,938	836	2,774	78,832
Broadcast news analysts	67	67	0	11	11	78,062
Education administrators, elementary and secondary school	4,436	5,166	730	618	1,348	72,666
Advertising and promotions managers	341	368	27	38	65	70,678
Music directors and composers	62	70	8	6	14	66,331
Judges, magistrate judges, and magistrates	365	425	60	35	95	65,294



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Producers and directors	687	755	68	102	170	64,563
Agents and business managers of artists, performers, and athletes	43	45	2	6	8	63,960
Education administrators, all other	194	231	37	27	64	59,800
Arbitrators, mediators, and conciliators	139	156	17	13	30	55,994
Reporters and correspondents	410	378	(32)	96	64	54,891
Vocational education teachers, secondary school	2,193	2,402	209	377	586	52,541
Vocational education teachers, middle school	409	449	40	55	95	50,930
Farm, ranch, and other agricultural managers	712	779	67	26	93	50,336
Total	105,413	117,689	12,276	11,830	24,106	
Weighted Average Annual Earnings						\$109,466

Bachelor's Degree

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Petroleum engineers	6,948	8,147	1,199	898	2,097	\$135,866
Nuclear engineers	78	81	3	9	12	122,524
Physical scientists, all other	131	147	16	13	29	111,247
Chemical engineers	2,748	2,851	103	349	452	106,018
Engineers, all other	5,559	6,094	535	327	862	101,525
Sales engineers	1,793	1,978	185	226	411	99,674
Orthotists and prosthetists	92	109	17	4	21	98,758
Marine engineers and naval architects	542	559	17	71	88	97,510
Materials engineers	1,022	1,135	113	119	232	97,386
Civil engineers	13,032	14,862	1,830	1,717	3,547	96,886
Mining and geological engineers, including mining safety engineers	608	711	103	69	172	96,138
Electrical engineers	3,977	4,388	411	462	873	95,243
Computer hardware engineers	877	936	59	135	194	95,098



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Mechanical engineers	7,069	7,885	816	767	1,583	94,682
Securities, commodities, and financial services sales agents	6,432	7,039	607	823	1,430	92,206
Personal financial advisors	2,464	2,984	520	111	631	91,936
Airline pilots, copilots, and flight engineers	1,606	1,963	357	235	592	91,609
Physician assistants	1,115	1,434	319	77	396	90,584
Electronics engineers, except computer	2,404	2,612	208	279	487	89,482
Computer software engineers, applications	8,392	10,502	2,110	612	2,722	89,253
Aerospace engineers	4,283	4,711	428	425	853	88,587
Computer software engineers, systems software	5,712	6,663	951	416	1,367	88,483
Health diagnosing and treating practitioners, all other	414	495	81	35	116	87,901
Architects, except landscape and naval	1,925	2,154	229	182	411	87,422
Agricultural engineers	79	90	11	9	20	85,800
Financial examiners	392	439	47	34	81	85,758
Health and safety engineers, except mining safety engineers and inspectors	1,327	1,468	141	160	301	83,949
Industrial engineers	3,763	4,520	757	453	1,210	82,202
Computer programmers	8,657	8,929	272	1,083	1,355	80,725
Financial specialists, all other	1,554	1,756	202	207	409	80,101
Construction managers	9,033	10,579	1,546	700	2,246	79,435
Computer systems analysts	11,145	13,335	2,190	1,478	3,668	77,730
Environmental engineers	981	1,162	181	144	325	77,334
Financial analysts	6,997	8,303	1,306	199	1,505	75,878
Budget analysts	1,217	1,391	174	141	315	75,566
Materials scientists	132	140	8	18	26	73,632
Chemists	1,679	1,772	93	222	315	72,738
Credit analysts	1,563	1,659	96	299	395	72,030
Logisticians	3,263	3,828	565	242	807	71,698
Market research analysts	4,492	5,177	685	152	837	71,011



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Network and computer systems administrators	7,067	8,421	1,354	807	2,161	70,470
Business operation specialists, all other	15,497	18,414	2,917	830	3,747	69,451
Database administrators	2,505	2,991	486	134	620	69,014
Cartographers and photogrammetrists	387	463	76	60	136	68,328
Accountants and auditors	23,641	27,570	3,929	2,080	6,009	67,995
Loan officers	3,429	3,796	367	185	552	67,995
Tax examiners, collectors, and revenue agents	740	843	103	94	197	67,475
Network systems and data communications analysts	3,493	4,610	1,117	356	1,473	67,350
Foresters	16	19	3	2	5	67,205
Surveyors	1,188	1,361	173	184	357	65,395
Biological scientists, all other	189	210	21	19	40	64,750
Insurance underwriters	1,274	1,360	86	171	257	64,730
Occupational health and safety specialists	1,602	1,836	234	152	386	64,230
Employment, recruitment, and placement specialists	4,477	5,233	756	482	1,238	63,981
Atmospheric and space scientists	162	185	23	20	43	63,336
Human resources, training, and labor relations specialists, all other	1,760	2,053	293	189	482	63,086
Biomedical engineers	187	218	31	21	52	62,982
Life scientists, all other	23	26	3	3	6	62,774
Animal scientists	30	35	5	5	10	61,755
Public relations specialists	4,242	4,835	593	160	753	61,131
Technical writers	676	774	98	102	200	59,010
Compensation, benefits, and job analysis specialists	3,499	4,090	591	376	967	58,739
Social and community service managers	1,248	1,457	209	119	328	57,221
Commercial and industrial designers	196	221	25	26	51	57,117
Editors	1,148	1,193	45	171	216	57,054
Soil and plant scientists	75	85	10	11	21	56,992



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Insurance sales agents	5,794	6,396	602	629	1,231	56,950
Athletic trainers	261	312	51	25	76	55,869
Training and development specialists	4,211	4,858	647	453	1,100	55,515
Zoologists and wildlife biologists	103	118	15	10	25	54,933
Landscape architects	191	213	22	18	40	54,496
Multi-media artists and animators	383	466	83	45	128	54,267
Medical and clinical laboratory technologists	3,649	4,309	660	276	936	51,771
Food scientists and technologists	56	61	5	9	14	51,376
Legal support workers, all other	205	232	27	17	44	51,293
Designers, all other	23	27	4	3	7	50,357
Secondary school teachers, except special and vocational education	21,640	24,976	3,336	3,222	6,558	50,265
Adult literacy, remedial education, and GED teachers and instructors	1,633	1,956	323	87	410	49,546
Directors, religious activities and education	43	48	5	5	10	49,379
Dietitians and nutritionists	610	705	95	77	172	49,317
Meeting and convention planners	819	925	106	82	188	48,464
Special education teachers, preschool, kindergarten, and elementary school	3,191	3,902	711	355	1,066	48,289
Middle school teachers, except special and vocational education	18,578	21,995	3,417	2,028	5,445	48,284
Special education teachers, secondary school	1,008	1,177	169	112	281	48,115
Medical and public health social workers	1,604	1,965	361	169	530	47,819
Special education teachers, middle school	1,168	1,412	244	130	374	47,747
Property, real estate, and community association managers	5,639	6,438	799	390	1,189	47,715
Writers and authors	516	567	51	46	97	47,486
Elementary school teachers, except special education	36,784	43,993	7,209	4,016	11,225	47,359
Therapists, all other	222	264	42	13	55	46,467



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Education, training, and library workers, all other	192	225	33	13	46	45,718
Kindergarten teachers, except special education	2,674	3,226	552	221	773	45,640
Conservation scientists	92	104	12	14	26	44,970
Graphic designers	2,533	2,829	296	337	633	44,866
Film and video editors	146	137	(9)	23	14	42,765
Law clerks	415	446	31	37	68	40,955
Social workers, all other	456	537	81	48	129	40,643
Community and social service specialists, all other	567	677	110	33	143	39,312
Recreational therapists	155	173	18	12	30	37,981
Probation officers and correctional treatment specialists	1,496	1,785	289	87	376	37,835
Total	331,305	384,741	53,436	33,703	87,139	
Weighted Average Annual Earnings						\$69,635

Associate Degree

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Radiation therapists	271	342	71	20	91	\$78,978
Computer specialists, all other	2,597	2,976	379	344	723	78,832
Nuclear technicians	74	79	5	13	18	78,458
Geological and petroleum technicians	3,123	3,690	567	590	1,157	72,197
Nuclear medicine technologists	401	486	85	27	112	71,926
Dental hygienists	2,577	3,091	514	246	760	68,266
Occupational therapist assistants	431	525	94	33	127	67,184
Registered nurses	42,954	53,195	10,241	3,545	13,786	65,686
Funeral directors	521	546	25	62	87	60,507
Industrial engineering technicians	1,424	1,587	163	139	302	60,299
Diagnostic medical sonographers	830	1,022	192	56	248	59,363
Electrical and electronic engineering technicians	3,873	4,201	328	378	706	54,392



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Radiologic technologists and technicians	3,695	4,453	758	250	1,008	53,435
Mechanical engineering technicians	2,531	2,821	290	247	537	53,040
Engineering technicians, except drafters, all other	1,826	2,019	193	178	371	51,272
Respiratory therapists	1,928	2,386	458	142	600	51,022
Physical therapist assistants	840	1,049	209	54	263	50,898
Electro-mechanical technicians	289	306	17	28	45	50,856
Fish and game wardens	107	121	14	13	27	49,629
Aerospace engineering and operations technicians	233	260	27	23	50	49,150
Chemical technicians	2,678	2,734	56	448	504	48,568
Paralegals and legal assistants	5,550	6,469	919	365	1,284	48,443
Computer support specialists	12,107	13,660	1,553	1,869	3,422	48,006
Interior designers	1,256	1,472	216	167	383	47,882
Forensic science technicians	175	226	51	33	84	46,946
Environmental engineering technicians	887	1,017	130	86	216	46,176
Fashion designers	105	120	15	14	29	45,198
Cardiovascular technologists and technicians	763	962	199	52	251	44,616
Social science research assistants	58	68	10	11	21	44,491
Respiratory therapy technicians	716	809	93	109	202	42,910
Civil engineering technicians	3,128	3,458	330	305	635	41,642
Biological technicians	1,052	1,217	165	187	352	41,163
Medical equipment repairers	958	1,118	160	134	294	40,414
Environmental science and protection technicians, including health	1,133	1,352	219	216	435	39,187
Life, physical, and social science technicians, all other	2,739	3,131	392	521	913	38,709
Forest and conservation technicians	77	85	8	15	23	38,147
Total	103,907	123,053	19,146	10,920	30,066	
Weighted Average Annual Earnings						\$57,888



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014**Postsecondary Vocational Award**

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Commercial pilots	1,064	1,355	291	156	447	\$81,682
Ship engineers	686	738	52	90	142	66,165
Electrical and electronics drafters	1,187	1,287	100	170	270	59,280
Occupational health and safety technicians	515	606	91	49	140	55,141
Mechanical drafters	2,724	3,007	283	389	672	54,080
Drafters, all other	437	484	47	62	109	52,478
Aircraft mechanics and service technicians	1,635	1,907	272	83	355	52,125
Avionics technicians	122	141	19	6	25	51,542
Architectural and civil drafters	3,011	3,162	151	430	581	50,149
Appraisers and assessors of real estate	824	960	136	83	219	49,629
Electrical and electronics repairers, commercial and industrial equipment	1,623	1,769	146	275	421	49,088
Electrical and electronics repairers, powerhouse, substation, and relay	403	404	1	78	79	48,110
Real estate sales agents	5,601	6,241	640	448	1,088	47,466
Legal secretaries	3,198	3,549	351	255	606	45,531
Healthcare practitioners and technical workers, all other	390	463	73	37	110	44,429
Surgical technologists	1,616	2,020	404	247	651	42,869
Court reporters	424	497	73	35	108	41,808
Licensed practical and licensed vocational nurses	12,969	15,242	2,273	1,768	4,041	40,789
Mobile heavy equipment mechanics, except engines	3,440	4,048	608	337	945	40,643
Slot key persons	12	14	2	1	3	40,352
Automotive service technicians and mechanics	10,296	11,473	1,177	1,032	2,209	39,603
Desktop publishers	195	208	13	20	33	39,437
Electrical and electronics installers and repairers, transportation equipment	195	213	18	21	39	38,938
Total	52,567	59,788	7,221	6,072	13,293	
Weighted Average Annual Earnings						\$45,502



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014***Long-term on-the-job training***

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Air traffic controllers	1,061	1,232	171	145	316	\$120,890
Nuclear power reactor operators	16	18	2	3	5	76,128
Claims adjusters, examiners, and investigators	3,681	4,010	329	469	798	61,027
Radio and television announcers	277	289	12	59	71	60,882
Chemical plant and system operators	7,040	6,611	(429)	1,942	1,513	58,843
Power plant operators	458	486	28	79	107	58,635
Elevator installers and repairers	666	714	48	88	136	57,699
Compliance officers, except agriculture, construction, health and safety, and transportation	4,442	4,952	510	259	769	56,035
Boilermakers	1,886	2,162	276	342	618	55,182
Insurance appraisers, auto damage	213	236	23	27	50	54,933
Actors	559	586	27	58	85	54,766
Power distributors and dispatchers	232	235	3	46	49	54,558
Coaches and scouts	1,762	2,132	370	226	596	53,518
Petroleum pump system operators, refinery operators, and gaugers	8,121	8,698	577	1,666	2,243	52,520
Plant and system operators, all other	49	50	1	7	8	51,626
Gas plant operators	1,111	1,175	64	209	273	51,314
Police and sheriff's patrol officers	13,587	16,225	2,638	1,816	4,454	51,230
Numerical tool and process control programmers	282	320	38	29	67	49,587
Telecommunications equipment installers and repairers, except line installers	3,142	3,224	82	387	469	48,485
Electrical power-line installers and repairers	2,940	3,151	211	463	674	48,110
Transit and railroad police	97	114	17	13	30	46,946
Artists and related workers, all other	39	42	3	5	8	45,760
Aircraft structure, surfaces, rigging, and systems assemblers	585	620	35	61	96	44,970
Plumbers, pipefitters, and steamfitters	9,643	11,201	1,558	995	2,553	44,824
Millwrights	922	1,047	125	58	183	44,699
Crane and tower operators	1,734	1,983	249	155	404	44,678



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Industrial machinery mechanics	9,976	11,562	1,586	832	2,418	44,595
Fire fighters	5,902	7,072	1,170	1,075	2,245	44,470
Media and communication workers, all other	39	44	5	5	10	44,200
Audio and video equipment technicians	480	550	70	78	148	43,451
Airfield operations specialists	77	95	18	10	28	42,598
Rail car repairers	412	448	36	40	76	42,203
Heating, air conditioning, and refrigeration mechanics and installers	3,921	4,536	615	344	959	42,037
Electricians	14,493	15,991	1,498	1,866	3,364	41,725
Tool and die makers	410	466	56	47	103	\$41,621
Fine artists, including painters, sculptors, and illustrators	191	215	24	22	46	40,144
Telecommunications line installers and repairers	4,401	4,528	127	573	700	40,082
Interpreters and translators	859	1,060	201	102	303	39,936
Stationary engineers and boiler operators	494	551	57	42	99	39,894
Entertainers and performers, sports and related workers, all other	61	69	8	10	18	39,499
Medical appliance technicians	252	283	31	24	55	39,104
Home appliance repairers	993	1,064	71	112	183	38,688
Structural iron and steel workers	1,998	2,220	222	325	547	38,043
Musical instrument repairers and tuners	148	159	11	21	32	38,043
Total	109,652	122,426	12,774	15,135	27,909	
Weighted Average Annual Earnings						\$48,643

Moderate-term on-the-job training

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Sales representatives, wholesale and manufacturing, technical and scientific products	6,542	7,229	687	722	1,409	\$77,563



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Sales representatives, wholesale and manufacturing, except technical and scientific products	30,975	34,373	3,398	3,418	6,816	65,229
Sales representatives, services, all other	10,746	12,792	2,046	1,265	3,311	63,856
Precision instrument and equipment repairers, all other	260	284	24	36	60	63,523
Media and communication equipment workers, all other	85	94	9	11	20	61,402
Bookbinders	67	67	0	10	10	56,826
Explosives workers, ordnance handling experts, and blasters	113	132	19	17	36	56,035
Audio-visual collections specialists	144	150	6	20	26	51,480
Chemical equipment operators and tenders	4,843	4,676	(167)	814	647	51,002
Commercial divers	49	56	7	2	9	48,963
Railroad brake, signal, and switch operators	738	721	(17)	187	170	48,922
Rail transportation workers, all other	40	35	(5)	16	11	47,403
Signal and track switch repairers	68	67	(1)	5	4	46,134
Rotary drill operators, oil and gas	3,466	4,109	643	268	911	45,718
Statistical assistants	81	93	12	18	30	45,510
Title examiners, abstractors, and searchers	1,980	2,095	115	177	292	45,427
Gas compressor and gas pumping station operators	262	263	1	75	76	45,386
Loading machine operators, underground mining	74	88	14	6	20	44,304
Earth drillers, except oil and gas	509	606	97	83	180	44,200
Subway and streetcar operators	159	191	32	28	60	44,179
Pump operators, except wellhead pumpers	414	443	29	108	137	44,179
Advertising sales agents	1,413	1,578	165	124	289	43,826
Travel guides	40	32	(8)	16	8	43,805
Control and valve installers and repairers, except mechanical door	1,570	1,659	89	138	227	43,701



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Wellhead pumpers	1,844	2,014	170	475	645	42,973
Service unit operators, oil, gas, and mining	4,778	5,669	891	370	1,261	42,890
Executive secretaries and administrative assistants	38,083	43,533	5,450	3,032	8,482	42,640
Extraction workers, all other	384	461	77	48	125	42,411
Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	879	867	(12)	126	114	42,182
Mining machine operators, all other	30	31	1	6	7	42,099
Installation, maintenance, and repair workers, all other	988	1,112	124	32	156	42,037
Hoist and winch operators	59	66	7	5	12	41,475
Railroad conductors and yardmasters	1,148	1,261	113	223	336	41,267
Eligibility interviewers, government programs	446	507	61	39	100	41,122
Gaming service workers, all other	18	22	4	2	6	40,810
Pile-driver operators	199	238	39	19	58	40,269
Mechanical door repairers	401	456	55	35	90	39,125
Brokerage clerks	1,076	1,107	31	174	205	39,042
Refractory materials repairers, except brickmasons	43	48	5	6	11	39,000
Roof bolters, mining	69	83	14	10	24	38,418
Tax preparers	1,707	1,803	96	223	319	38,022
Dispatchers, except police, fire, and ambulance	3,569	3,876	307	451	758	38,002
Metal workers and plastic workers, all other	142	141	(1)	30	29	38,002
Locomotive engineers and operators	150	162	12	26	38	37,939
Derrick operators, oil and gas	2,563	3,058	495	204	699	37,877
Total	123,214	138,348	15,134	13,100	28,234	
Weighted Average Annual Earnings						\$52,292



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014**Short-term on-the-job training**

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Postal service clerks	635	646	11	71	82	\$55,827
Postal service mail carriers	5,579	5,681	102	817	919	50,170
Postal service mail sorters, processors, and processing machine operators	2,680	2,600	(80)	335	255	49,150
Bridge and lock tenders	17	19	2	2	4	45,448
Grounds maintenance workers, all other	64	72	8	4	12	43,992
Shuttle car operators	14	13	(1)	4	3	42,827
Production, planning, and expediting clerks	5,287	5,863	576	719	1,295	40,539
Reservation and transportation ticket agents and travel clerks	6,705	7,421	716	737	1,453	38,917
Loan interviewers and clerks	2,871	2,970	99	261	360	38,584
Riggers	842	934	92	28	120	38,106
Total	24,694	26,219	1,525	2,978	4,503	
Weighted Average Annual Earnings						\$43,305

Work experience in a related field

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Industrial production managers	3,733	3,988	255	754	1,009	\$115,731
Managers, all other	3,236	3,670	434	322	756	101,296
Transportation, storage, and distribution managers	2,698	3,013	315	400	715	90,522
Captains, mates, and pilots of water vessels	1,380	1,514	134	182	316	84,053
First-line supervisors/managers of non-retail sales workers	5,728	6,140	412	413	825	79,373
First-line supervisors/managers of police and detectives	381	450	69	60	129	77,750
Real estate brokers	593	660	67	47	114	67,018
Cost estimators	4,779	5,613	834	489	1,323	66,664



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Postmasters and mail superintendents	148	149	1	18	19	65,395
Detectives and criminal investigators	1,848	2,259	411	202	613	64,563
Wholesale and retail buyers, except farm products	2,764	2,945	181	312	493	63,690
Emergency management specialists	139	163	24	7	31	62,650
First-line supervisors/managers of fire fighting and prevention workers	140	167	27	22	49	62,608
Lodging managers	540	623	83	59	142	62,046
First-line supervisors/managers of production and operating workers	14,767	15,828	1,061	1,592	2,653	59,238
First-line supervisors/managers of mechanics, installers, and repairers	8,177	9,014	837	959	1,796	59,072
First-line supervisors/managers of construction trades and extraction workers	15,571	17,826	2,255	1,087	3,342	57,554
Food service managers	3,526	4,098	572	416	988	57,013
Purchasing agents, except wholesale, retail, and farm products	6,713	7,334	621	717	1,338	56,659
Construction and building inspectors	2,092	2,476	384	194	578	54,746
Purchasing agents and buyers, farm products	79	83	4	9	13	53,955
First-line supervisors/managers of transportation and material-moving machine and vehicle operators	3,360	3,771	411	343	754	52,520
First-line supervisors/managers of office and administrative support workers	29,634	32,782	3,148	3,058	6,206	51,709
Aircraft cargo handling supervisors	34	42	8	3	11	51,522
Fire inspectors and investigators	704	842	138	79	217	50,586
First-line supervisors/managers, protective service workers, all other	554	651	97	45	142	48,485
Transportation inspectors	567	677	110	95	205	48,214



Exhibit 7 (cont.)

Gulf Coast Region, "Good Jobs," 2009-2014

Occupation	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Private detectives and investigators	425	525	100	41	141	46,426
Agricultural inspectors	26	29	3	3	6	45,302
Choreographers	181	214	33	50	83	44,054
First-line supervisors/managers of helpers, laborers, and material movers, hand	3,507	3,962	455	358	813	42,245
Chefs and head cooks	1,207	1,396	189	76	265	42,078
First-line supervisors/managers of retail sales workers	21,869	23,798	1,929	2,294	4,223	41,392
Gaming supervisors	35	43	8	3	11	39,915
Self-enrichment education teachers	1,007	1,247	240	54	294	39,666
Total	142,142	157,992	15,850	14,763	30,613	
Weighted Average Annual Earnings						\$58,023

Sources: Economic Modeling Specialists, Inc., Texas Workforce Commission and Texas Comptroller of Public Accounts.

training provide weighted average earnings of \$45,502 annually.

Exhibit 8 lists 25 occupations expected to have the highest number of job openings in the Gulf Coast region between 2009 and 2014. Retail salespersons top the list, with 22,413 new job openings from 2009 to 2014 and average annual earnings of \$23,962.²³

Seventeen of the 25 occupations require only short- or moderate-term on-the-job training. These provide average annual earnings ranging between \$15,954 and \$65,229. Three occupations require a bachelor's degree, including elementary school teachers, secondary school teachers and accountants and auditors. One occupation, postsecondary teaching, requires a graduate degree.

Comptroller Assistance

One of the many functions of the Texas Comptroller of Public Accounts is to analyze demographics, labor force statistics and other economic factors that support local economic growth, and to provide this information to local governments and other groups. Through its Texas EDGE (Economic Data for Growth and Expansion) program, the agency can identify occupational and industry trends and their effects on local and regional economies.

Since August 2008, the Comptroller has responded to 698 Texas EDGE requests from city and county government officials, economic development corporations, private

(text continued on Page 39)



Exhibit 8

Gulf Coast Region, Occupations with the Most Projected Job Openings, 2009-2014

Description	2009 Jobs	2014 Jobs	Growth	Replacement	Total Job Openings	2009 Average Annual Earnings
Retail salespersons	79,316	89,519	10,203	12,210	22,413	\$23,962
Waiters and waitresses	43,925	52,868	8,943	11,931	20,874	17,285
Combined food preparation and serving workers, including fast food	63,994	77,737	13,743	6,068	19,811	16,307
Cashiers, except gaming	59,609	62,711	3,102	15,179	18,281	17,472
Customer service representatives	52,400	61,673	9,273	7,296	16,569	29,973
Registered nurses	42,954	53,195	10,241	3,545	13,786	65,686
Elementary school teachers, except special education	36,784	43,993	7,209	4,016	11,225	47,359
Office clerks, general	48,095	54,793	6,698	4,413	11,111	25,147
Laborers and freight, stock, and material movers, hand	38,883	42,215	3,332	6,222	9,554	22,318
Janitors and cleaners, except maids and housekeeping cleaners	42,646	47,943	5,297	4,082	9,379	18,595
Executive secretaries and administrative assistants	38,083	43,533	5,450	3,032	8,482	42,640
General and operations managers	40,974	44,180	3,206	4,939	8,145	117,146
Personal and home care aides	22,274	28,406	6,132	1,887	8,019	15,954
Postsecondary teachers	24,081	29,788	5,707	2,013	7,720	88,055
Secretaries, except legal, medical, and executive	45,672	49,468	3,796	3,636	7,432	27,976
Bookkeeping, accounting, and auditing clerks	32,293	36,861	4,568	2,527	7,095	33,966
Sales representatives, wholesale and manufacturing, except technical and scientific products	30,975	34,373	3,398	3,418	6,816	65,229
Cooks, restaurant	19,432	23,590	4,158	2,632	6,790	18,970
Secondary school teachers, except special and vocational education	21,640	24,976	3,336	3,222	6,558	50,265
Construction laborers	34,095	39,343	5,248	1,283	6,531	23,192
Security guards	22,745	26,708	3,963	2,308	6,271	24,253
First-line supervisors/managers of office and administrative support workers	29,634	32,782	3,148	3,058	6,206	51,709
Accountants and auditors	23,641	27,570	3,929	2,080	6,009	67,995
Stock clerks and order fillers	31,782	32,647	865	4,990	5,855	23,192
Truck drivers, heavy and tractor-trailer	28,720	31,788	3,068	2,548	5,616	35,693

Source: Economic Modeling Specialists, Inc., Texas Workforce Commission and Texas Comptroller of Public Accounts



businesses and members of the media. These requests have covered many topics including demographics, economic development, economic modeling and taxes.

The Comptroller also can provide local demographic data, identify business clusters and provide maps of regional roadways and waterways. For assistance, please visit www.window.state.tx.us/texasedge or e-mail texas.edge@cpa.state.tx.us.

The agency also provides local governments with information about tax-related programs and helps them identify opportunities to raise funds for economic development efforts through property, sales and franchise tax revenues, exemptions and credits. The agency also provides information on special assessments and other opportunities related to disaster relief.

The Comptroller's Texas Ahead Web portal (<http://www.texasahead.org>) provides information on tax programs and incentives, best practices and economic indicators, as well as reports and publications such as a recent report on Texas work force training, *Texas Works*. Texas EDGE also allows users to build customized models using region-specific data of their choice.

Finally, the Comptroller's State Energy Conservation Office (SECO) can help local governments slash their energy costs and adopt cost-effective clean energy technologies. SECO offers local governments a free preliminary energy audit of their facilities. These audits provide recommendations for reducing electricity consumption by improving the efficiency of heating and air condi-

Kemah Boardwalk

Kemah Boardwalk in Kemah on Galveston Bay is a vibrant shopping and entertainment venue. *Forbes Traveler* recently ranked it as one of the top 10 boardwalks in the nation for 2009. Despite damage caused by Hurricane Ike in September 2008, the boardwalk is recovering well. In fact, the majority of the boardwalk's attractions were reopened before the end of 2008. Kemah employs more than 2,000 individuals and hosts an estimated 3 million guests annually.

Kemah offers a variety of shopping and dining options, as well as an impressive selection of rides. In 2007, Kemah opened the Boardwalk Bullet, a roller coaster that spans 3,236 feet. Kemah also offers kid-friendly rides including a carousel and a miniature train. Kemah Boardwalk hosts live events throughout the year, including a concert series that runs from May to August, fireworks shows during the summer and the Bay Area Heart Walk on behalf of the American Heart Association.²⁴

tioning systems and lighting. For assistance, please visit <http://www.seco.cpa.state.tx.us>.

SECO is anticipating \$290.2 million in federal funds through the American Recovery and Reinvestment Act to help local governments save energy, create or retain jobs in the community, increase energy generation from renewable resources and reduce greenhouse gas emissions.



Oil and Gas Industry Profile

By any standard, Texas' oil and gas industry makes enormous contributions to the state and the nation. In 2008, the industry represented 16.5 percent of the Texas gross state product, providing more than \$35 billion in wages and 3.5 percent of the state's 2008 total nonfarm employment.²⁵ According to the U.S. Energy Information Administration (EIA), Texas produces one quarter of the nation's refined petrochemical products, including coke, asphalt, gasoline, gases, chemical feedstocks and materials. Texas also produces thirty percent of the nation's natural gas supplies.²⁶

The industry is legendary not only for its colorful wildcatters, but also for its boom and bust cycles. The year 2008 contained both—an all-time high world price of oil at \$137.11 per barrel in early July 2008 and a four-year low of \$35.99 six months later in December 2008, according to EIA. EIA data also indicate prices rose in 2009, closing at \$75.75 per barrel in November of that year.²⁷

Industry Economics

The definition of "oil and gas industry" used by the Comptroller's office contains several economic sectors defined by the North American Industry Classification System, or NAICS, as used by the U.S. Census Bureau and the U.S. Bureau of Economic Analysis. According to this definition, in 2008 the Gulf Coast region accounted

for more than half (58.5 percent) of the state's 2008 total oil and gas employment, with an average of 215,200 persons employed in that year.²⁸ Gulf Coast oil and gas also represented 2.1 percent of the state's total nonfarm employment.

The region's oil and gas industry employers paid workers \$26.9 billion in 2008, which is 68.8 percent of Texas oil and gas wages and 5.3 percent of all wages paid in Texas nonfarm industries.²⁹ (**Exhibit 9**).

Exhibit 9

Gulf Coast Region and Texas Comparisons, Oil and Gas Industry, 2008

2008 Oil and Gas Industry	Average Employment	Total Wages
Austin County	453	\$22,895,298
Brazoria County	9,257	908,952,239
Chambers County	638	45,383,412
Colorado County	518	26,680,043
Fort Bend County	6,413	627,911,017
Galveston County	5,517	614,213,987
Harris County	178,818	23,573,764,983
Liberty County	1,158	65,494,270
Matagorda County	1,518	26,992,466
Montgomery County	8,222	802,025,009
Walker County	379	18,402,425
Waller County	899	49,342,116
Wharton County	1,410	74,625,036
Gulf Coast Region Total Oil and Gas Industry	215,200	\$26,856,682,301
Texas Total Oil and Gas Industry	367,967	\$39,046,544,700
Gulf Coast Region	58.5%	68.8%
Texas Total Nonfarm Industries	10,451,979	\$504,793,000,000
Gulf Coast Region	2.1%	5.3%

Sources: U.S. Bureau of Economic Analysis, Texas Workforce Commission and Texas Comptroller of Public Accounts.



Oil and Gas Industry Profile (cont.)

In 2008, Harris County alone accounted for 83.1 percent of the Gulf Coast's oil and gas employment and 87.8 percent of the Gulf Coast's oil and gas wages (**Exhibit 10**). The county's oil and gas industry accounted for 48.6 percent of state jobs in the sector and 60.4 percent of its wages. Harris County's oil and gas industry represented 1.7 percent of all nonfarm jobs in the state and 4.7 percent of all nonfarm wages.

Refineries

A significant portion of the oil and gas industry's economy refines crude oil into fuels (diesel, home heating oil, gasoline, jet fuel, propane, butane and natural gas) and chemical feedstocks, the essential building blocks of products such as waxes, lubricants, plastics and nylon.³⁰ Refineries in the Gulf Coast region can process 2.3 million barrels of crude oil per day, almost half of the state's total daily output of 4.7 million barrels (**Exhibit 11**). Particularly notable is Baytown's ExxonMobil refinery, the nation's largest, which alone accounts for 24.5 percent of the region's refinery capacity.³¹

Exhibit 10

Contributions of the Harris County Oil and Gas Industry, 2008

Harris County	Employment	Wages
Share of Gulf Coast oil and gas industry	83.1%	87.8%
Share of Texas oil and gas industry	48.6%	60.4%
Share of Texas nonfarm industries	1.7%	4.7%

Sources: U.S. Bureau of Economic Analysis, Texas Workforce Commission and Texas Comptroller of Public Accounts.

Exhibit 11

Gulf Coast Refinery Capacity (Barrels of Crude Oil Refined per Calendar Day)

Company	Refinery Location	Crude Distillation Capacity
ExxonMobil Refining & Supply Co.	Baytown	572,500
BP Products North America Inc.	Texas City	455,790
Deer Park Refining Ltd. Partnership	Deer Park	329,800
Houston Refining LP	Houston	270,600
ConocoPhillips Company	Sweeny	247,000
Valero Refining Co. Texas LP	Texas City	199,500
Pasadena Refining Systems Inc.	Pasadena	100,000
Valero Refining Co. Texas LP	Houston	83,000
Marathon Petroleum Co. LLC	Texas City	76,000
Gulf Coast Refineries TOTAL		2,334,190
Texas Refineries TOTAL		4,747,179
Gulf Coast Share of Texas		49.2%

Sources: U.S. Energy Information Administration and the Texas Comptroller of Public Accounts.



Seaports and Trade Industry Profile

Seaports and sea-borne trade are an important economic asset for the Gulf Coast region, directly and indirectly supporting significant numbers of jobs. The region is home to four major seaports, those of Houston, Texas City, Freeport and Galveston.

The Port of Houston is one of the world's largest cargo ports. In 2007, the port ranked first in Texas, second in the U.S., and 16th in the world in total cargo volume handled.³² It is also the state's second-largest cruise port and is expanding those operations with the opening of a new cruise terminal.

The Port of Houston is a 25-mile-long complex administered by the Port of Houston Authority and hosts more than 150 private industrial companies along the Houston Ship Channel. More than 225 million tons of cargo moved through the port in 2007 and 8,053 vessel calls were recorded at the Port of Houston in 2008.³³

International trade partners of the port include Mexico and countries in the Middle East, South America and Europe. Principal products handled at the Port of Houston include crude fertilizers, petroleum, organic chemicals, cereal, iron and steel, machinery, plastics and vehicles.

A recent study by the University of Texas at Austin's Center for Transportation Research found that the Port of Houston directly or indirectly accounted for 785,049 jobs, \$39.3 billion in personal income and \$117.6 billion in economic impact on the area, while providing \$3.7 billion in tax revenue for local, state and federal governments in 2006.³⁴

The Port of Texas City is the state's fourth-largest, 13th in the nation and 87th in the world for total cargo volume.³⁵ It is located about 10 miles northwest of Galveston and has the significant advantage of a highly integrated railway system.

The railway facilitates the movement of liquid cargoes including crude petroleum oil and refined petroleum products. The Texas City Terminal Railway Company handles more than 25,000 rail car loads annually. Both the Union

Pacific and Burlington Northern Santa Fe rail companies have a significant presence in the area, with 32 miles of connecting rail lines that serve different facilities at the port. The Port of Texas City includes 1,500 acres of land leased to various industrial entities that operate petrochemical plants and refineries and tank and terminal facilities, making it a vital national hub for the petroleum industry.³⁶

The Port of Texas City directly or indirectly accounted for 15,050 jobs and \$919.5 million in personal income in 2004. In that year, it generated \$667.6 million in economic activity in the area and contributed \$248.3 million in tax revenue to local, state and federal governments.

In 2007, the port handled nearly 52 million tons of cargo. Its principal import is crude oil, while its principal exports are gasoline, diesel, jet fuel, intermediate chemicals and petroleum coke. The port serves customers throughout the U.S., as well as numerous countries around the world.³⁷

The Port of Freeport, located about 50 miles south of Houston in Brazoria County, is the fifth-largest port in Texas and the 27th-largest in the nation for total cargo volume.³⁸ Its principal imports include crude petroleum, fruit, textiles, aggregate, paper goods and plastics. Its primary exported commodities include automobiles, chemicals, clothing, food, paper goods and plastics.

The port serves customers throughout the U.S. and from Nigeria, Saudi Arabia, South Africa, Brazil, Colombia, the Dominican Republic, Guatemala, Honduras, Mexico, Venezuela and Costa Rica. The port directly or indirectly accounted for 25,795 jobs, \$1.8 billion in personal income and \$1.6 billion in economic activity, while contributing \$169.9 million in tax revenue for local, state and federal governments in 2003. The Port of Freeport handled about 29.6 million tons of cargo in 2007.³⁹

In 2007, the Port of Galveston was the eighth-largest port in the state and 53rd-largest in the nation for total cargo volume.⁴⁰ The port, located at the mouth of Galveston Bay along the Upper Texas Coast, handles imports including containers, agricultural equipment,



Seaports and Trade Industry Profile (cont.)

machinery, vehicles, fertilizer products, lumber products and military-related cargoes. Its principal exports include bulk grains, containers, machinery, vehicles, linerboard and paper, carbon black and light fuels. In 2007, the port handled 9.8 million tons of cargo.⁴¹

The Port of Galveston is also Texas' number-one passenger port. In 2006, nearly 617,000 people embarked from the port on cruise ships.

The port serves customers throughout the state as well as Texas' neighboring states and the Midwestern U.S. Its international trading partners include Mexico, Guatemala, Panama, Colombia, Venezuela, Brazil, Dominican Republic, Spain, Italy, Egypt, Israel, Turkey, Bulgaria, Belgium, England, Germany, Saudi Arabia, United Arab Emirates, Kuwait, Singapore and China.

The Port of Galveston directly or indirectly accounted for 13,367 jobs, \$727.5 million in personal income, and \$2.2 billion in economic activity, while contributing \$190.4 million in tax revenue to local, state and federal governments in 2006.⁴²

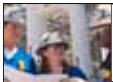


Houston Ship Channel Bridge

PHOTO: FIGG Engineering Group

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Demographics

The Gulf Coast region consists of 13 counties, nine of them in the metropolitan statistical area (MSA) of Houston-Sugar Land-Baytown. The metropolitan counties include Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller. (San Jacinto County is also in the MSA, but is not included in the Comptroller's Gulf Coast region.)

The non-metro counties are Colorado, Matagorda, Walker and Wharton. As defined by the federal government, an MSA is a core urban area of 50,000 or more residents

accompanied by adjacent communities that have a high degree of economic and social interaction with that core (as measured by commuting to and from work).¹ **Exhibit 12** illustrates the region's counties and their county seats.

Houston-Sugar Land-Baytown MSA is the nation's sixth-largest metro area and the second-largest in Texas, with an estimated population of 5,728,143 people in 2008, or nearly a quarter of the state population. Harris County is the nation's third most-populous county, with a population of 3,984,349. The county accounts for 70 percent of the MSA population and 68 percent of the Gulf Coast regional population.²

Harris County is the nation's third most-populous county, with a population of 3,984,349.

Population Growth

The region's population rose by an estimated 20.8 percent between 2000 and 2008,

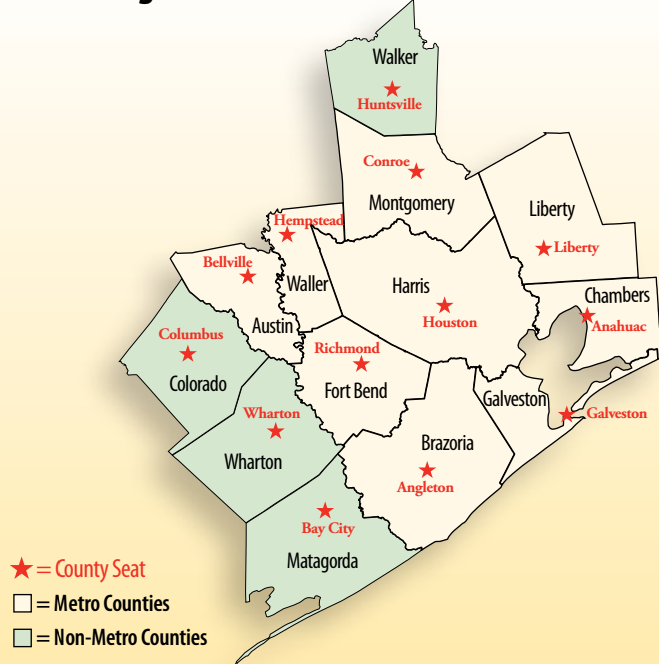


St. Vincent's House Free Clinic, Galveston

PHOTO: University of Texas Medical Branch at Galveston



Exhibit 12

Gulf Coast Region Metro Counties

Sources: Office of Management and Budget and Texas Comptroller of Public Accounts.

led by strong growth in Fort Bend, Montgomery and Brazoria counties. Fort Bend County was the nation's 20th-fastest growing county during this period, with 50.1 percent growth, while Montgomery County ranked 30th with a 46.4 percent increase. In all, the counties comprising the Houston MSA increased their populations by 21.5 percent while the populations of the region's four non-metro counties rose by just 1.1 percent (**Exhibit 13**).³

From 2007 to 2008, the Houston metro area experienced the nation's second-largest total population increase, adding 130,185 people; Harris County had the second-largest total increase among all U.S. counties, adding 72,153 people.⁴

The population of the Gulf Coast region increased by an annual average of 2.4

Festivals

The Gulf Coast region hosts several festivals and other events that draw local residents as well as visitors to the region.

Brazoria County's Freeport Summertime Blues Festival is a three-day, family-friendly motorcycle rally and concert held every September. The party begins on Friday with a parade and concludes on Sunday with a triathlon.⁵

Gatorfest, held in the Chambers County town of Anahuac each September, features three days of country and Zydeco music, carnival rides, regional dishes and an alligator roundup. The 2009 roundup winner John Aimone captured the prize with a gator in excess of 13 feet.⁶

The Katy Rice Harvest Festival, sponsored by the Katy Chamber of Commerce, will celebrate its 30th year in 2010. According to organizers, the fall festival attracts tens of thousands of visitors each year who come to hear live music, visit vendor booths and ride carnival rides. It also hosts a popular rice cooking contest.⁷

Galveston has hosted a Mardi Gras festival for almost a century, with an estimated 250,000 attendees each year. During the 12-day festival, revelers enjoy live music at Saengerfest Park, witness several colorful parades, visit the beachfront carnival and experience Galveston's nightlife.⁸

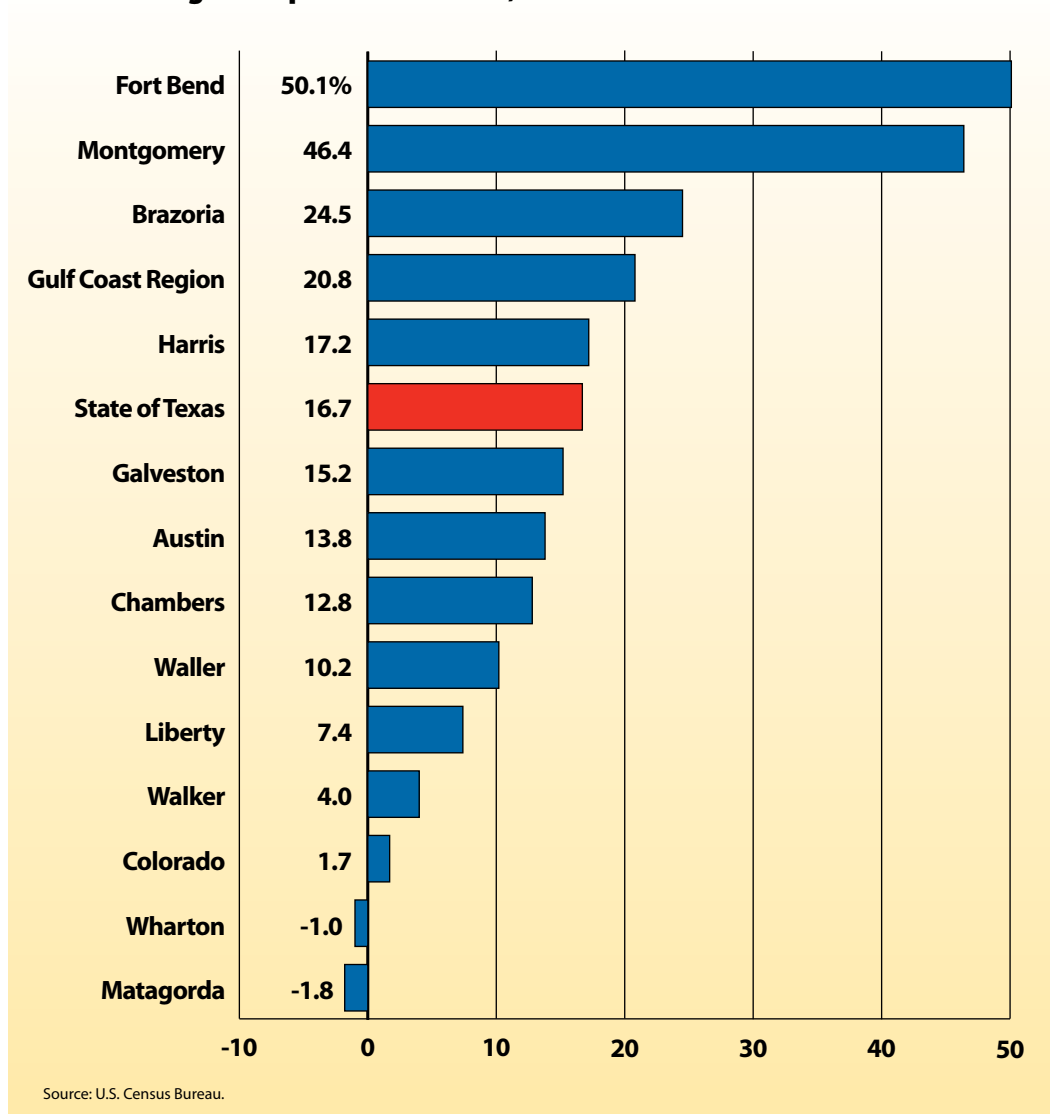
Liberty County is home to Dayton Ole Tyme Days each spring, which features a carnival, car show and cook-off that promote the community while raising money for local youth scholarships. Daisetta hosts the Mayhaw Festival in the spring to promote the mayhaw, a fruit native to the region.⁹

The Conroe Cajun Catfish Festival is an annual October event benefiting the Friends of Conroe, a nonprofit organization that supports civic and cultural improvements in Montgomery County. The festival features live music, arts and crafts exhibitors and a variety of Cajun-style food.¹⁰

Other festivals in the region include Hempstead's Annual Watermelon Festival in July, Conroe's spring Go Texan Parade and the Fiesta Hispano Americana in Wharton.



Exhibit 13

Gulf Coast Region Population Growth, 2000-2008

In the year following the aftermath of Hurricane Katrina, the population in the region increased by 182,031, or 3.3 percent, with Harris County adding 123,357 residents.

percent from 2000 to 2008, compared to 1.9 percent in Texas. In the year following the aftermath of Hurricane Katrina, the population in the region increased by 182,031, or 3.3 percent, with Harris County adding 123,357 residents, representing 67.8 percent of the region's total increase. Comparatively, the region's previous year population increase was 110,374, or 2.1 percent. In that year Harris County

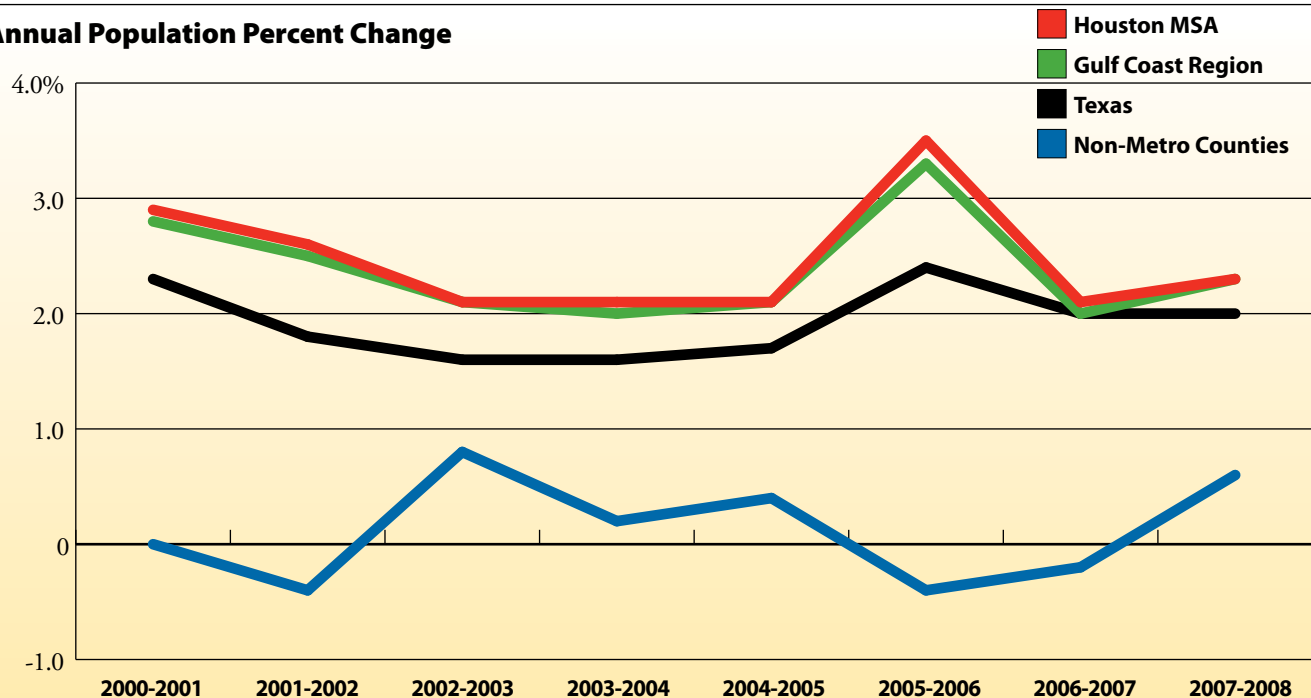
added 62,384 residents, or 56.5 percent of the region's overall increase.

By 2007, Gulf Coast population growth decreased to 2.0 percent; consistent with years prior to Hurricane Katrina (**Exhibit 14**).¹¹

The components of population change — natural increase due to births and net domestic and international migration — differ across the region. For example, international migration accounted for 41 percent (or



Exhibit 14

Annual Population Percent Change

Source: U.S. Census Bureau.

241,196 persons) of Harris County's population growth from 2000 to 2008, more than compensating for 95,176 domestic residents — residents moving within the U.S. — that moved out of the county in that period. This domestic out-migration was the second-largest in the state behind Dallas County, which had a net decline of 261,208 domestic residents.

Fort Bend County added 123,903 domestic residents from 2000 to 2008, the third-largest increase of domestic migrants in the state, while Montgomery County had the fifth-largest increase with 101,221 added residents (**Exhibit 15**).¹²

In the year following Hurricane Katrina, Harris County experienced a net gain of about 40,000 domestic residents, compared to net loss of more than 31,000 from

2003-04 and nearly 26,000 from 2004-05. The Gulf Coast region added 85,535 domestic residents in the year following Hurricane Katrina, compared to a net increase of 8,186 in the previous year.

From 2007 to 2008, net internal migration increased, mostly due to a smaller net loss of domestic residents in Harris County (**Exhibit 16**). In that period, Harris County experienced only a 1,835 net loss of domestic residents.¹³

Ethnicity

The Gulf Coast region was 42.7 percent white in 2008, followed by Hispanics at 33.9 percent, blacks at 16.5 percent and Asians at 5.5 percent. The remaining 1.4 percent fell in the "other" category, including American

(text continued on Page 53)



Exhibit 15

Cumulative Population Change Estimates, Gulf Coast Counties, 2000-2008

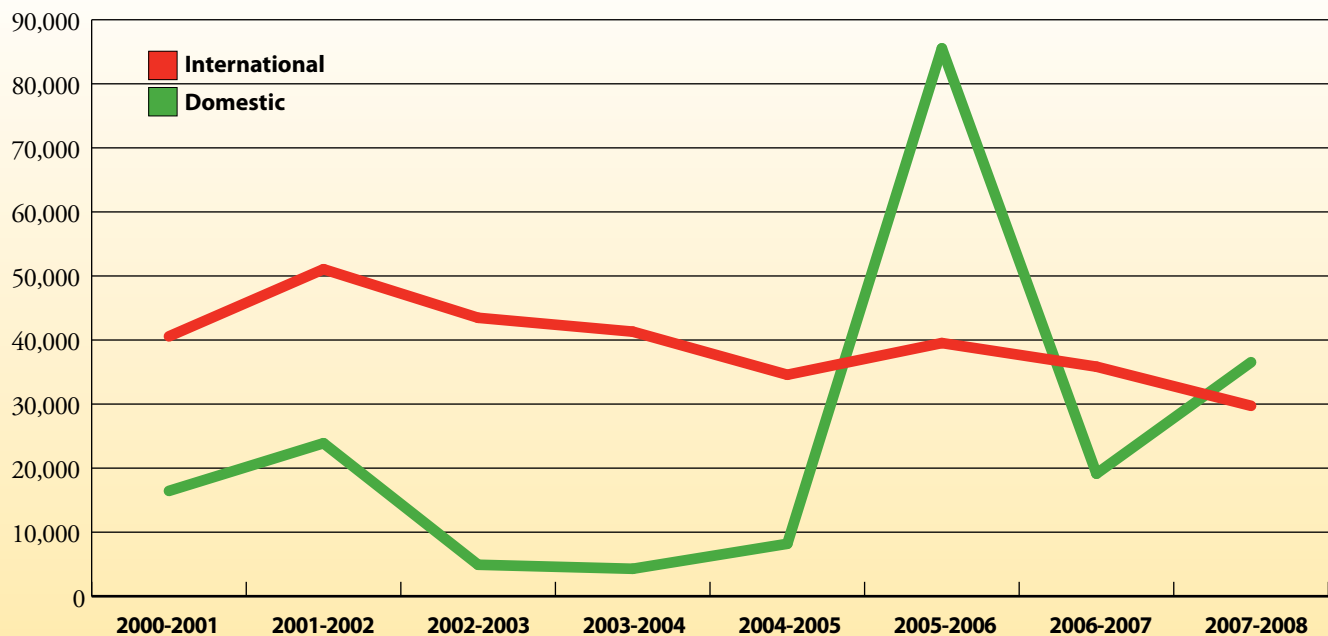
Geographic Area	Natural Increase (Births Minus Deaths)	Net Migration International	Net Migration Domestic	Total Net Migration	Total Population Change
Austin County	549	435	2,393	2,828	3,261
Brazoria County	21,959	5,162	33,156	38,318	59,277
Chambers County	1,337	386	1,750	2,136	3,325
Colorado County	176	533	-251	282	365
Fort Bend County	37,610	13,608	123,903	137,511	177,689
Galveston County	13,893	5,904	19,752	25,656	38,081
Harris County	380,857	241,196	-95,176	146,020	583,759
Liberty County	3,202	778	1,508	2,286	5,174
Matagorda County	1,594	1,134	-3,272	-2,138	-692
Montgomery County	25,619	8,633	101,221	109,854	136,186
Walker County	1,686	741	269	1,010	2,455
Waller County	2,331	750	389	1,139	3,333
Wharton County	1,989	888	-3,072	-2,184	-397
Gulf Coast Region	492,802	280,148	182,570	462,718	1,011,816
Texas	1,884,947	851,909	711,785	1,563,694	3,475,163

Note: Total population change may not equal the sum of natural increase and net migration. The difference includes a residual, which represents the change in population that cannot be attributed to any specific demographic component.

Source: U.S. Census Bureau.

Exhibit 16

Gulf Coast Region, Annual Net Migration



Source: U.S. Census Bureau.



Houston Sports Teams

On October 17, 1960, an ownership group headed by Roy Hofheinz was awarded a Major League Baseball franchise in the ten-team National League. Originally named the Colt .45s, the franchise was renamed the Houston Astros in 1965 when they began playing in the newly opened Astrodome. In 2000, they moved to their current location, now known as Minute Maid Park.¹⁴

Professional soccer in the Gulf Coast region dates back to the mid-1960s. The Major League Soccer franchise the Houston Dynamo debuted in 2006 and went on to win its first championship title that year. Building on this success, the Dynamo won another championship in 2007, and its crest now bears two stars to mark these championships. The team currently plays in Robertson Stadium on the University of Houston campus, but plans are under way to build a soccer-specific venue.¹⁵

During the 1967-68 season, the National Basketball Association (NBA) expanded to include the San Diego Rockets, who were bought by Texas Sports Investments and moved to Houston as the Houston Rockets in 1971. In 1994, the Rockets won their first NBA championship. After claiming another title in 1995, the Rockets became only the fifth franchise in NBA history to win back-to-back championships. In 2003, the Rockets moved into their present home, the Toyota Center.¹⁶

From 1960 to 1996, the Houston Oilers were the first National Football League (NFL) franchise to carry the city's name. Heisman Trophy winners Billy Cannon and Earl Campbell played for the Oilers, as did other notable NFL players such as George Blanda, Dan Pastorini and Warren Moon. They first called Jeppesen Stadium home but moved to the Houston Astrodome in 1968. The Oilers left Houston for the 1997 season and later became the Tennessee Titans, taking the rights to the name and all previous NFL records.¹⁷

On October 6, 1999, the National Football League owners unanimously approved the creation of a new team franchise in Houston. In 2002, Reliant Stadium opened, hosting the Houston Texans and boasting the first retractable roof in a professional football stadium. Since that first season, the Texans have garnered steady attendance figures of around 70,000 per home game. The young franchise produces great talent and has had several players selected to the Pro Bowl team, including Andre Johnson as a wide receiver for the 2004, 2006, 2008 and 2009 seasons. Their general manager, Rick Smith, is the youngest in the league.¹⁸

The Houston Aeros American Hockey League team plays at the Toyota Center and has enjoyed attendance of up to 13,342, when the Aeros helped welcome the Astros' newest team member, Roger Clemens, to the city. The team is affiliated with the Minnesota Wild of the National Hockey League and has made the playoffs several times in its history.¹⁹

The Houston Takers is one of the 50 teams of the American Basketball Association. In 2006, seven years after the ABA was formed, Larry D. Leonard II and Shuwana Leonard decided to bring a team to Houston. Originally the Houston Undertakers, the team has a new name and a new motto, "This Time It's Personal."²⁰

The Independent Women's Football League welcomed the Houston Energy with a full membership in 2008. The Energy organization, owned by Brian Wiggins, was established in 2000 and has a reputation for strong showings at their games — and a rivalry with the Dallas Diamonds.²¹

The Houston Comets was a Women's National Basketball Association (WNBA) franchise formed in 1997, but suspended operations for the 2009 season. During its 12-year span, the Comets won four WNBA championships.²²



Stan Musial World Series

Texans have a well-established love affair with baseball, and the Gulf Coast region is no exception. Houston is home to the American Amateur Baseball Congress' Stan Musial Division World Series.

Once called the Major Division, it was renamed after the legendary St. Louis Cardinals outfielder and first baseman in 1963. This division is open to players 19 and older, and can include any number of ex-professional players on a given team. The Stan Musial Division includes teams from all over the U.S. and Puerto Rico, and many major-league baseball players have participated in Stan Musial leagues throughout the nation.

Stan Musial Division baseball began in 1935, and World Series games were played in Battle Creek, Michigan. In 2006, the venue moved to Huntsville and now Houston in 2010.

In 2009, the Bayamon Vaqueros from Puerto Rico beat the Long Island Storm to win the Stan Musial World Series Championship.²³

Indian or Alaska Native, Native Hawaiian and other Pacific Islander and those claiming descent from two or more races. **Exhibit 17** compares the Gulf Coast region's ethnic distribution to that of the state and U.S.

From 2000 to 2008, the white population rose by 6 percent, well below the region's overall growth of 20.8 percent. As a result, the share of white population fell from 48.7 percent in 2000 to 42.7 percent in 2008.

The Hispanic population rose by 42.9 percent from 2000 to 2008, increasing its Gulf Coast share from 28.6 percent to 33.9 percent. The black population increased by 18.7 percent overall (maintaining its 16.5 percent share), and Asians rose by 39.0 percent. The "other" ethnicities increased by 57.8 percent. Forty percent of Texas' Asian population resides in the Gulf Coast region.

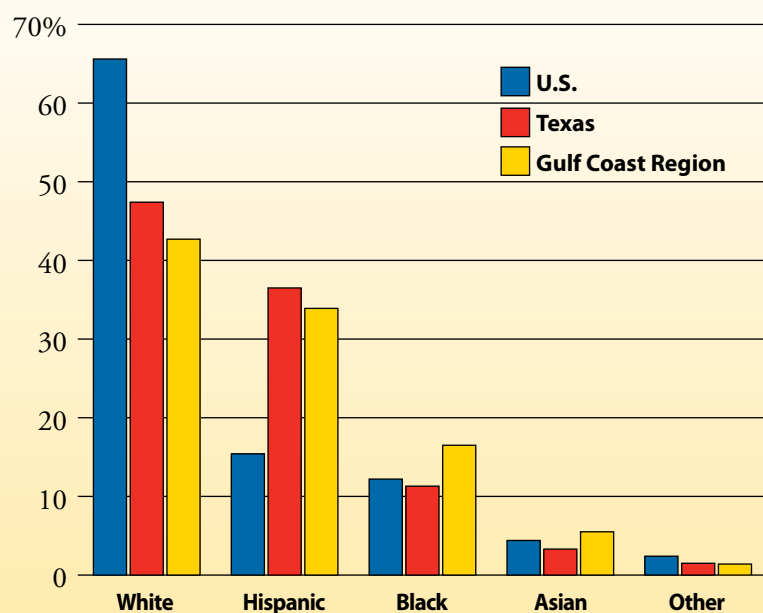
The black population increased significantly following Hurricane Katrina, adding 62,000 residents, compared to 14,300 in the previous year. The percent growth of the black population spiked 7.0 percent from 2005 to 2006, up from 1.6 in the previous year.

While the "other" population only represents 1.4 percent of the population, it is the

fastest growing ethnic demographic in the region. From 2007 to 2008, this demographic increased by 5.5 percent. Hispanics increased 4.3 percent, followed by Asians with 4.1 percent growth. Blacks increased 1.5 percent, similar to growth in years prior

Exhibit 17

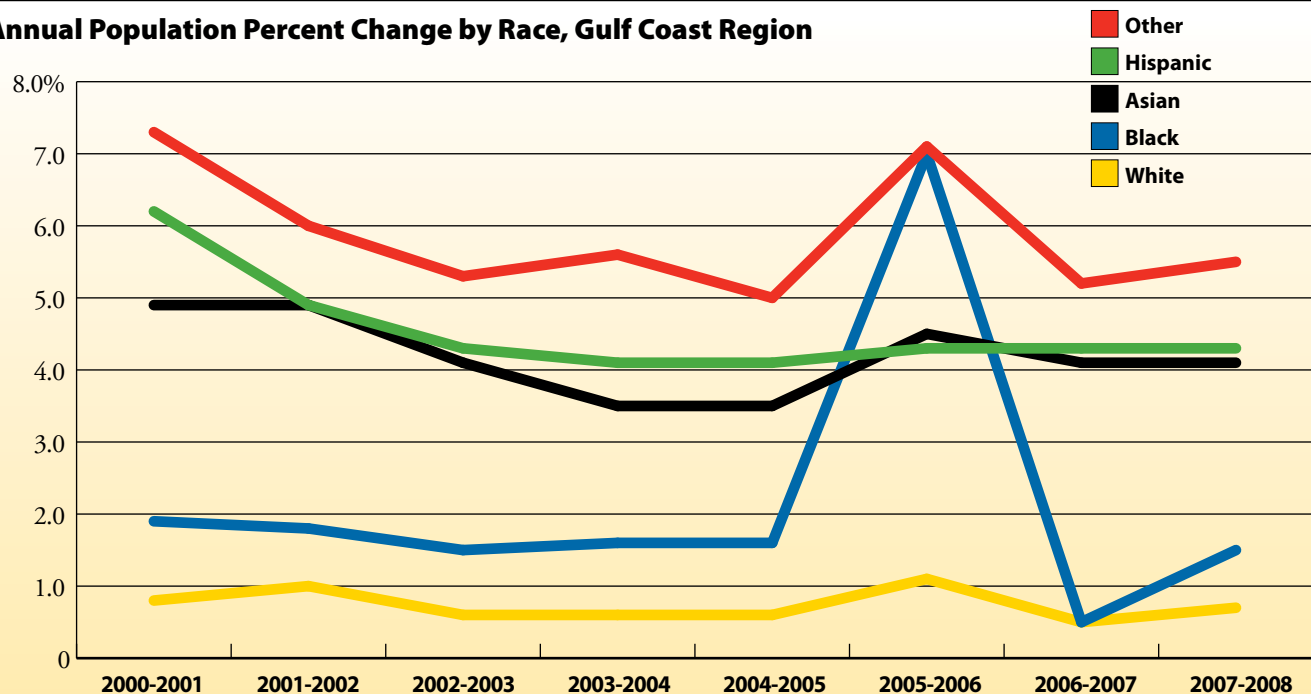
2008 Population by Ethnicity, U.S., Texas and Gulf Coast Region



Source: U.S. Census Bureau.



Exhibit 18

Annual Population Percent Change by Race, Gulf Coast Region

Source: U.S. Census Bureau.

to Hurricane Katrina. The white population increased 0.7 percent during this period (**Exhibit 18**).²⁴

Age

The age distribution of the Gulf Coast population closely mirrors that of the state. Nearly 38 percent of both the region's and the state's residents are under the age of 25, above the U.S. distribution of 34.1 percent. On the other end of the spectrum, 8.4 percent of Gulf Coast residents are above the age of 65, compared to 10.2 percent in Texas and 12.8 percent in the U.S. (**Exhibit 19**).

In the region's non-metro counties, 37.2 percent of the population is under the age of 25, while 13.1 percent are 65 years and over.²⁵

Texas is the second-youngest state in the U.S., with a median age of 33.2 years. The

median age of Houston is slightly younger, at 32.8 years. The U.S. median age, by contrast, is 36.8 years.²⁶

Educational Attainment

The Gulf Coast's share of residents with a post-secondary degree is 32 percent which is lower than that of the U.S., at 33 percent. The Texas share is at 30.5 percent. The region's share of residents without a high school diploma is the same as the state's at 21 percent, compared to 16 percent in the U.S. (**Exhibit 20**).²⁷

Unemployment

The Gulf Coast region's unemployment rate was 8.3 percent in December 2009, slightly higher than the state rate of 8

(text continued on Page 57)



Famous People

The Gulf Coast region has produced many notable individuals spanning a variety of talents. From movie stars to entrepreneurs, Houston and its surrounding areas have provided the nation with some of its brightest achievers.

Houston native Dennis Quaid is famous for starring in high-profile movies such as *The Day After Tomorrow*, and was inducted into the Texas Film Hall of Fame. Golden Globe-nominated actress Jaclyn Smith, one of the three female leads in the original *Charlie's Angels* series, hails from the Houston area. Houston-born Jennifer Garner has always been proud of her Texas roots and attained fame in the television series *Alias*.

Patrick Swayze grew up among Houston's dancing elite and later went on to star in several blockbuster movies. Oscar-winning actress Renee Zellweger was born and raised in the Houston suburb of Katy. Houston natives Richard Linklater and Wes Anderson both became Oscar-nominated film writers and directors. Finally, Houstonites Hilary and Haylie Duff have built successful television, movie and musical careers. Hilary is best known for the Disney television show *Lizzie McGuire*, and Haylie for *Seventh Heaven*.²⁸

The Gulf Coast region also produces a number of music stars. The popular rock and roll band *ZZ Top* got its start in the Houston area; one of its members, guitarist Billy Gibbons was born and raised in the region.

Country music singer and songwriter Kenny Rogers is another Houston native. Beyonce Knowles is also from Houston and won fame with her award-winning girl group Destiny's Child. Singer-songwriter Lyle Lovett, born in Klein, attended Texas A&M University and has won several awards including the 1989 Grammy for Best Male Country Vocal Performance.

Anthony Joseph Foyt Jr., known in the racing circles as A.J. Foyt, began his career in racing more than 50 years ago and has won races in five countries. Originally from the Houston Heights, he gained an interest in racing while working on his father's cars as a boy.

National Football League Hall of Fame member Eric Dickerson is from Sealy; he made the NFL pro-bowl team six times as a running back.²⁹

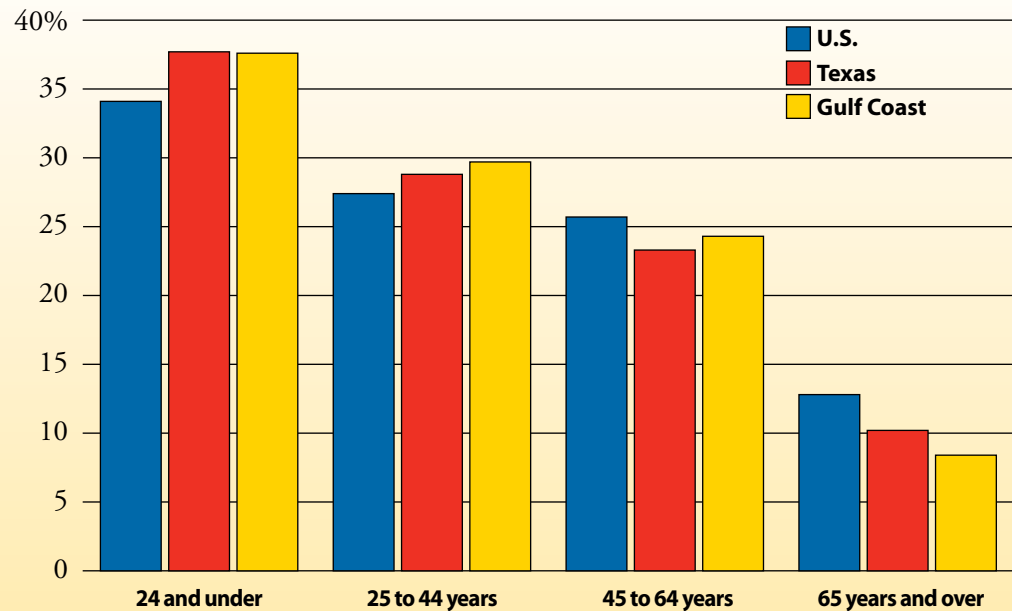
Dr. Denton A. Cooley is a renowned heart surgeon born in Houston and with strong ties to the Houston community. He has performed more than 1,200 heart bypass surgeries and 10,000 open-heart operations, and founded the city's Texas Heart Institute.

Television journalist Dan Rather was born in Wharton and attended college at Sam Houston State University in Huntsville. Another Houston celebrity, Red Adair, perfected the art of fighting oil well fires in fields in the U.S. and throughout the world. He put out more than 100 well fires in Kuwait following the first Persian Gulf War. Finally, the computer industry's longest-serving chief executive officer, Michael Dell, was born in Houston and began his computer empire in Texas.³⁰



Exhibit 19

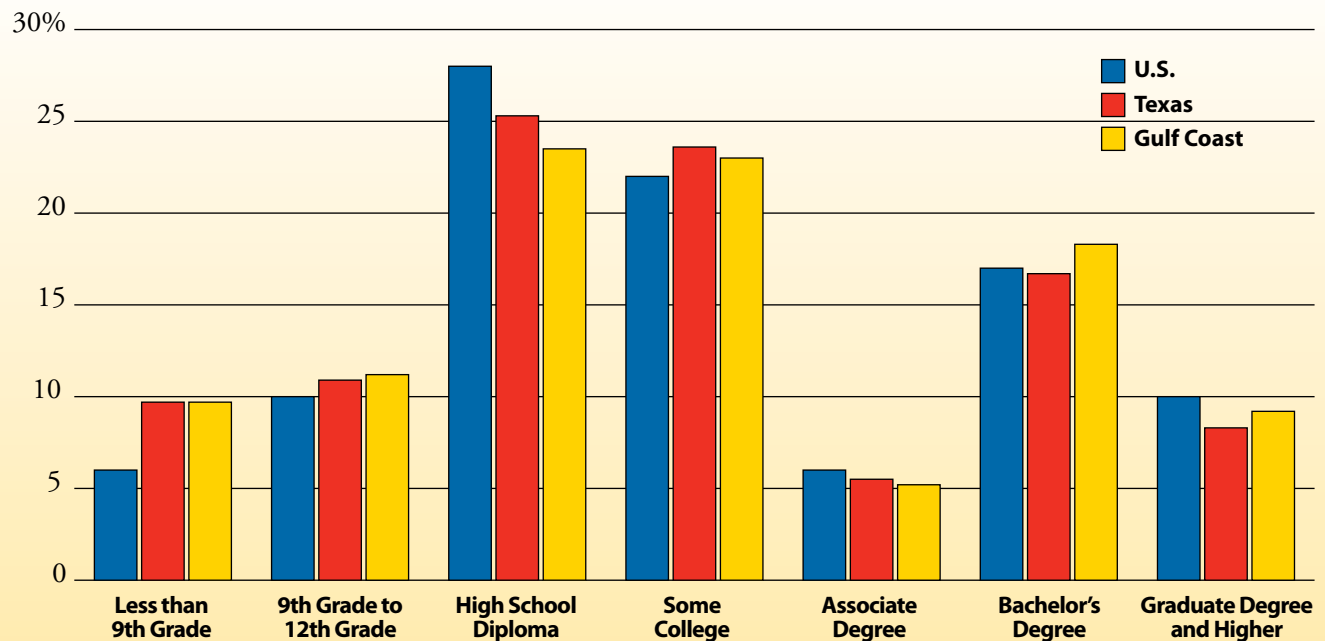
2008 Population by Age, U.S., Texas and Gulf Coast Region



Source: Economic Modeling Specialists Inc.

Exhibit 20

2008 Educational Attainment of Persons Above the Age of 25, U.S., Texas and Gulf Coast Region



Source: Economic Modeling Specialists Inc.



Rodeos

The Gulf Coast region hosts numerous rodeos throughout the year, including the Austin County Fair and Rodeo, the Brazoria County Fair, the Colorado County Fair, the Fort Bend County Fair, the Galveston County Fair and Rodeo, the Matagorda County Fair and Livestock Association, the Montgomery County Fair and Rodeo and the Walker County Fair and Rodeo.

The Houston Livestock Show and Rodeo, however, is the world's largest event of its kind. Established in 1931, the event has attracted millions of fans to its contests, concerts and shows. The 2009 event set an attendance record with nearly 1.9 million visitors. The event has a huge economic impact on the Houston area, generating about \$345 million in economic activity annually, with 465,000 hotel rooms booked and nearly 2 million meals served.³¹

One mission of the Houston Livestock Show and Rodeo is to promote research and education within the livestock industry. The rodeo has committed more than \$250 million to scholarships and educational programs since 1957. In 2009 alone, the rodeo awarded scholarships to more than 2,000 students enrolled in 90 Texas colleges and universities.

Huntsville once was home to one of the nation's most famous rodeos, the Texas Prison Rodeo. Billed as "the wildest show behind bars," the Texas Prison Rodeo began its run in 1931, outside the Walls Unit in Huntsville. By the 1950s, the crowd of spectators had grown to an astonishing 100,000.

The rodeo also attracted a number of recording artists. Over the years, performers such as Willie Nelson, Dolly Parton, George Strait and the Judds played to the crowds. The Huntsville arena eventually deteriorated over the years, however, and the prison system was unable to raise the funds needed for renovation. The last prison rodeo was held on October 26, 1986.³²

percent but well below the U.S. rate of 9.7 percent. The region's unemployment rate rose by almost half from December 2008 to December 2009 (**Exhibit 21**).

The total number of unemployed workers in the region increased by 52.1 percent over this 12-month period, from 159,453 to 242,559, topping the state increase of 44.2 percent.³³

Income

The median income for all Texas households was \$50,049 in 2008 (most recent data available). The region's median household incomes ranged from \$38,244 in Walker County to \$83,968 in Fort Bend County. The ten counties of the Houston-Sugar Land-Baytown MSA had the highest median

(text continued on Page 59)

Exhibit 21

Gulf Coast Region December Unemployment Rates

Area	2008	2009
Austin County	4.7	8.1
Brazoria County	6.0	9.0
Chambers County	6.7	10.3
Colorado County	4.6	6.4
Fort Bend County	5.1	8.1
Galveston County	7.6	8.9
Harris County	5.5	8.3
Liberty County	7.2	11.1
Matagorda County	8.2	11.8
Montgomery County	4.8	7.6
Walker County	5.4	7.1
Waller County	5.4	8.9
Wharton County	4.8	8.1
Gulf Coast Region	5.6	8.3
Texas	5.7	8.0
U.S.	7.1	9.7

Note: Unemployment rates are not seasonally adjusted.
Source: Texas Workforce Commission



State Prisons

The Texas Department of Criminal Justice (TDCJ) operates 26 prisons, jails and medical facilities in the Gulf Coast region. As of January 2010, TDCJ had a total of 113 units across the state. The Gulf Coast units have an offender capacity of 35,232, 22 percent of the state total, and can incarcerate up to 3,162 women and 32,070 male offenders.³⁴

The region's correctional facilities are largely in rural areas and employ 9,953 security, educational, medical and administrative personnel. Since 1848, the state prison system headquarters has been in Huntsville in Walker County. In this county, TDCJ is the largest employer, paying \$208 million a year in salaries. In fiscal 2009, staff wages for all TDCJ facilities in the region totaled \$301.1 million.³⁵

The Gulf Coast's 26 TDCJ units encompass 90 square miles, about the same area as the city of Amarillo. On this acreage, eligible offenders work in prison repair, maintenance, construction and factory operations as well as prison farms and ranches to make the units more self-supporting and teach inmates valuable job skills.

The Central Unit, for instance, has a soap and detergent factory and an auto repair shop. The Clemons Unit raises cattle and crops and processes swine. The Ellis and Estelle units operate a cotton gin, egg operation and bus repair and woodworking shops. The Hightower Unit operates a garment factory. The Byrd and Goree units grow crops and maintain a horse breeding program.³⁶

Offenders also participate in local public works and community projects. TDCJ units are allowed to enter into agreements with eligible nonprofit or governmental entities to provide inmate labor. In Huntsville, offenders recently prepared meals for hurricane evacuees and worked at the city's aquatic center.³⁷

Texas cell blocks are filled with men and women who cannot read or write and who never graduated from high school. TDCJ's Windham School District provides them with a variety of literacy, life skills, career and technology classes as well as academic courses.

The classes inmates may take are based on their individual treatment plans, their needs, program availability and their release date. Once inmates obtain a GED or high school diploma, they can go on to earn associate, bachelors and masters degrees and certificates in many fields.

TDCJ also offers various treatment programs for eligible offenders with histories of drug, alcohol and sexual addictions or abuse. TDCJ offers a cognitive-based curriculum for inmates to reduce violent and criminal behavior and discourage gang membership and activities. The agency's Special Needs Offender Program works with offenders who are mentally retarded or impaired, terminally ill or physically handicapped.

The goal of TDCJ's programs is to reduce the cost of confinement, promote positive behavior, increase offenders' success in finding and keeping lawful employment upon release and to reduce recidivism.³⁸

Texas Department of Criminal Justice, Gulf Region Units

County	Unit Name	Gender	Type	Capacity	Staff	FY 2009 Wages	Estab.	Acreage
Brazoria	Clemens	Male	Prison	1,215	333	\$11,139,297	1893	8,008
Brazoria	Darrington	Male	Prison	1,931	557	17,310,211	1917	6,770
Brazoria	Ramsey	Male	Prison	1,891	444	13,904,715	1908	16,369
Brazoria	Stringfellow	Male	Prison	1,212	331	9,989,190	1908	Combined
Brazoria	Terrell, C.T.	Male	Prison	1,603	479	14,404,364	1983	Acres



State Prisons (cont.)

County	Unit Name	Gender	Type	Capacity	Staff	FY 2009 Wages	Estab.	Acreage
Brazoria	Scott	Male	Prison	1,130	286	9,208,179	1919	5,766
Fort Bend	Central	Male	Prison	1,060	287	10,507,575	1909	336
Fort Bend	Jester I	Male	SAFP	323	120	3,941,775	1885	940
Fort Bend	Jester III	Male	Prison	1,131	309	10,143,862	1982	Combined Acres
Fort Bend	Jester IV	Male	Psychiatric	550	441	12,632,152	1993	
Fort Bend	Vance	Male	Prison	378	106	3,861,647	1885	
Galveston	Hospital-Galveston	Both	Medical	Temporary	560	11,511,849	1983	N/A
Galveston	Young	Female	Medical	310	276	7,250,484	1996	43
Harris	Kegans	Male	State Jail	667	157	5,417,366	1997	1
Harris	Lychner	Male	State Jail	2,276	428	12,639,022	1995	64
Liberty	Cleveland	Male	Private	520	134	3,145,382	1989	40
Liberty	Henley	Female	State Jail	576	124	4,298,021	1995	394
Liberty	Hightower	Male	Prison	1,342	340	11,074,381	1990	Combined Acres
Liberty	Plane	Female	State Jail	2,276	435	12,982,802	1995	
Walker	Byrd	Male	Prison	1,365	288	9,170,456	1964	1,412
Walker	Holliday	Male	Transfer	2,128	439	13,871,961	1994	Combined Acres
Walker	Wynne	Male	Prison	2,621	726	19,061,633	1883	
Walker	Ellis	Male	Prison	2,404	561	18,605,308	1965	11,327
Walker	Estelle	Male	Prison	3,297	1,028	29,581,370	1984	5,459
Walker	Goree	Male	Prison	1,321	340	11,259,827	1907	717
Walker	Huntsville	Male	Prison	1,705	424	14,214,706	1849	140
Total				35,232	9,953	\$301,127,535		57,786

Key: SAFP=Substance Abuse Felony Punishment

Sources: Texas Department of Criminal Justice and The Geo Group.

household incomes in the region, ranging from \$48,374 to \$83,968 (**Exhibit 22**).³⁹

In 2007, the Gulf Coast region's average personal income eclipsed the state average by 24 percent, at \$45,968 versus \$37,083, respectively. Once again, the counties of the Houston metro area brought up the average, particularly Harris County, where the

average personal income was \$49,634 (at least 16 percent higher than in any other county).

Waller County led the region in per capita income growth, with a 34.7 percent rise from 1997 to 2007. Harris County followed with 31.0 percent growth. In all, the region's per capita personal income rose by 28.1 percent



Exhibit 22

2008 Gulf Coast Region Socioeconomic Indicators

Area	Median Household Income, 2008	Percent of Population in Poverty, 2008	Percent of Population Under Age 18 in Poverty, 2008
U.S.	\$52,029	13.2	18.2
Texas	50,049	15.8	22.5

Gulf Coast Region Counties (Ranked by 2008 Median Household Income)

Area	Median Household Income, 2008	Percent of Population in Poverty, 2008	Percent of Population Under Age 18 in Poverty, 2008
Fort Bend County	\$83,968	8.0	10.2
Chambers County	66,033	9.1	12.8
Montgomery County	65,801	9.4	13.2
Brazoria County	63,959	9.6	12.5
Galveston County	57,950	11.9	16.1
Harris County	52,391	15.3	22.6
Waller County	50,653	15.5	21.1
Austin County	49,721	10.6	14.9
Liberty County	48,374	16.3	22.8
Wharton County	41,678	16.3	23.6
Matagorda County	40,578	18.0	27.0
Colorado County	39,441	17.9	25.2
Walker County	38,244	23.5	22.4

Sources: U.S. Census Bureau and Texas Comptroller of Public Accounts.

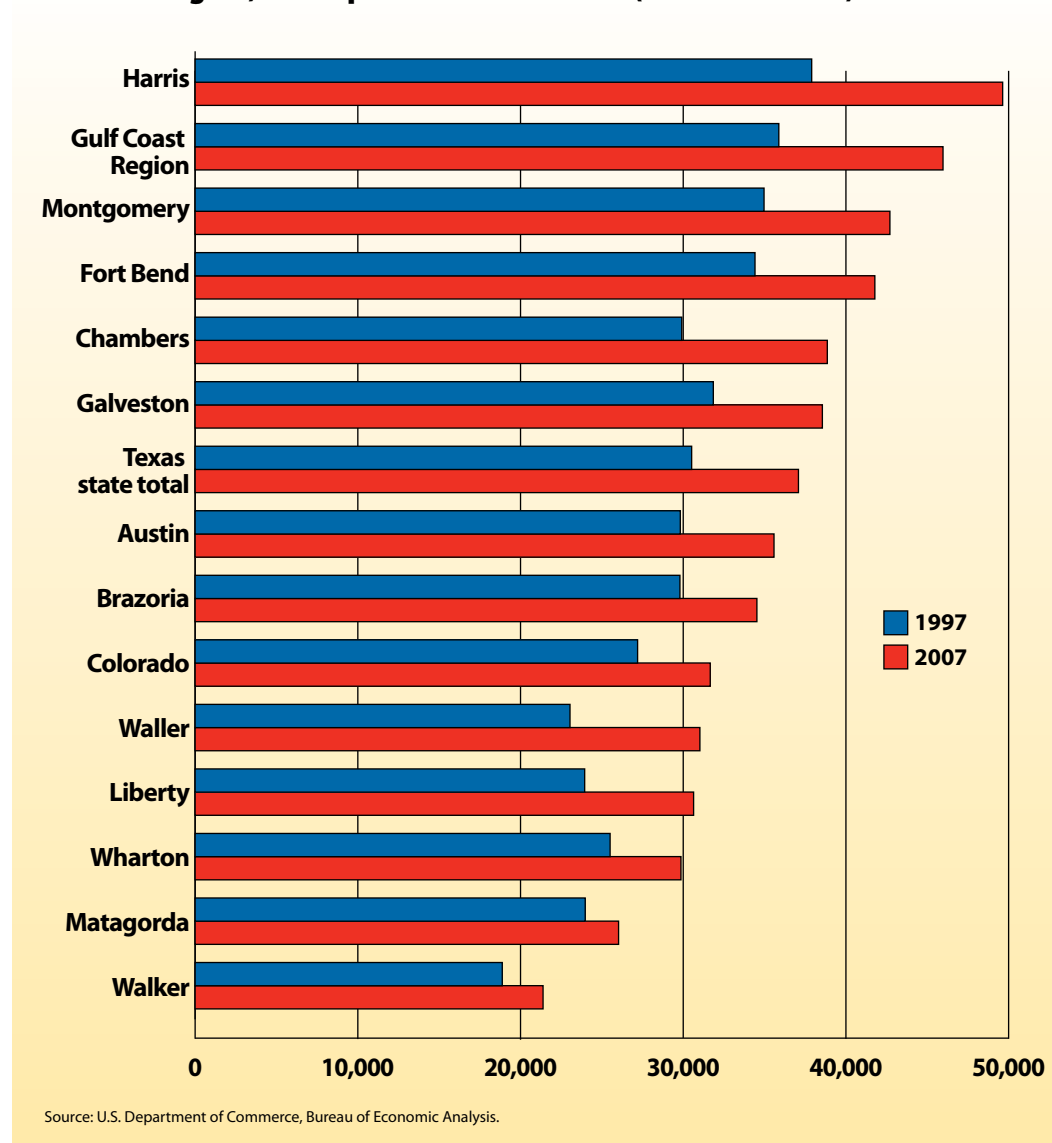
between 1997 and 2007, compared to 21.5 percent for the state as a whole (**Exhibit 23**).⁴⁰

Such comparisons, however, do not account for differences in living costs. A cost-of-living adjustment facilitates a more accurate comparison of income. For example, a person from Huntsville (Walker County) making the county median income

of \$38,244 in 2008 had the same purchasing power as someone in Houston (Harris County) making an income of \$44,467, a difference of 16 percent. In Richmond (Fort Bend County), where living costs were 17 percent higher than in Huntsville, an income of \$44,562 in 2008 would have yielded an equivalent purchasing power.⁴¹



Exhibit 23

Gulf Coast Region, Per Capita Personal Income (In 2007 Dollars)



Public Safety

According to the Texas Department of Public Safety (DPS), the Gulf Coast region's overall crime rate declined from 2007 to 2008 (See table). Only assaults increased, while all other categories declined.

According to DPS, the Gulf Coast region employed 12,170 commissioned peace officers and more than 5,400 civilian workers in 2008. (A commissioned peace officer has taken training courses and is certified by the Texas Commission on Law Enforcement. Civilian staff includes administrative professionals, jailers and other non-certified workers.)

Texas Workforce Commission data indicate that federal, state and local public safety positions in the region accounted for almost \$2.6 billion in earnings in 2008.⁴²

Crime Rates – Gulf Coast Region, 2007-2008

Crime	2007 Gulf Coast Crime Rate	2007 Texas Crime Rate	2008 Gulf Coast Crime Rate	2008 Texas Crime Rate	Gulf Coast Change in Crime Rate	Texas Change in Crime Rate
Murder	8.5	5.9	7.6	5.6	-10.6%	-5.1%
Rape	31.3	35.3	31.1	32.9	-0.6	-6.8
Robbery	264.5	162.2	251.6	155.2	-4.9	-4.3
Assault	373.2	307.8	393.3	314.4	5.4	2.1
Violent Crime	677.5	511.2	683.6	508.1	0.9	-0.6
Burglary	996.0	955.2	951.2	946.5	-4.5	-0.9
Larceny	2,546.6	2,771.4	2,407.1	2,688.9	-5.5	-3.0
Auto Theft	541.5	393.3	435.6	351.1	-19.6	-10.7
Property Crime	4,084.1	4,119.9	3,793.9	3,986.5	-7.1	-3.2
Total Crime Rate	4,761.6	4,631.1	4,477.5	4,494.6	-6.0%	-2.9%

Note: All crime rates are reported per 100,000 population.
Source: Texas Department of Public Safety.

Endnotes

¹ U.S. Census Bureau, "Metropolitan and Micropolitan Statistical Areas," <http://www.census.gov/population/www/metroareas/metroarea.html>. (Last visited January 14, 2010.)

² U.S. Census Bureau, "Estimates of Population Change for Metropolitan Statistical Areas and Rankings: July 1, 2007 to July 1, 2008," available in Excel format from <http://www.census.gov/popest/metro/CBSA-est2008-pop-chg.html>; and U.S. Census Bureau, "Resident Population Estimates for the 100 Largest U.S. Counties Based on July 1, 2008 Population Estimates: April 1, 2000 to July 1, 2008," available in Excel format from <http://www.census.gov/popest/counties/CO-EST2008-07.html>; and U.S. Census Bureau, "Annual Estimates of the Resident Population for Counties of Texas: April 1, 2000 to July 1, 2008," available in Excel format from <http://www.census.gov/popest/counties/CO-EST2008-01.html>. (Last visited January 14, 2010.)

³ U.S. Census Bureau, "Cumulative Estimates of Resident Population Change for Counties of Texas and County Rankings: April 1, 2000 to July 1, 2008," available in Excel format from <http://www.census.gov/popest/counties/CO-EST2008-02.html>; and U.S. Census Bureau, "Resident Population Estimates for the 100 Fastest Growing U.S. Counties with 10,000 or More Population in 2008: April 1, 2000 to July 1, 2008," available in Excel format from <http://www.census.gov/popest/counties/CO-EST2008-08.html>. (Last visited January 14, 2010.)

⁴ U.S. Census Bureau, "Estimates of Population Change for Metropolitan Statistical Areas and Rankings: July 1, 2007 to July 1, 2008"; and U.S. Census Bureau, "County Population, Population Change and Estimated Components of Population Change: April 1, 2000 to July 1, 2008," available in CSV format from <http://www.census.gov/popest/counties/counties.html>. (Last visited January 14, 2009.)



- ⁵ Texas Historical Commission, "Spotlight on... Freeport," *Main Street Matters* (October 2007), pp. 1-2, http://www.thc.state.tx.us/mainstreet/msPDF/org_msmatters_10_07.pdf. (Last visited January 19, 2010.)
- ⁶ Texas Gatorfest, "2009 Texas Gatorfest-Event Schedule," <http://www.texasgatorfest.com/schedule.htm>; "2009 Texas Gatorfest-Activities," <http://www.texasgatorfest.com/activities.htm>; "2009 Texas Gatorfest-Event Forms," <http://www.texasgatorfest.com/forms.htm>; and Cedric Iglehart, "Victorian Grabs Gargantuan Gator, Wins Tournament," *Victoria Advocate* (October 12, 2009), http://www.victoriadvocate.com/news/2009/oct/12/ci_gator_harvest_101209_69591?sports&local-sports. (Last visited January 17, 2010.)
- ⁷ Ashley Marchand, "A Fall Favorite," *Katy Sun* (October 7, 2009), http://www.hcnonline.com/articles/2009/10/07/katy_sun/news/sws-rice_harvest_festival.txt. (Last visited January 17, 2010.)
- ⁸ Mardi Gras! Galveston, "99th Mardi Gras Galveston: February 5-16, 2010," <http://www.mardigrasgalveston.com/index.html>; and "Mardi Gras! Press Releases: Mardi Gras Galveston 2009, Saengerfest Park & The Strand District Entertainment Schedule," <http://www.mardigrasgalveston.com/media/releases.html>. (Last visited February 16, 2010.)
- ⁹ Dayton Ole Tyme Days Festival, "Dayton Ole Tyme Days Festival, April 16th – 18th," <http://www.oletymedays.com/>; and Hull-Daisetta Mayhaw Festival, "Hull-Daisetta Mayhaw Festival, April 26 – May 1," <http://www.mayhawfestival.org/>. (Last visited January 18, 2010.)
- ¹⁰ Conroe Cajun Catfish Festival, "2010 Cajun Catfish Festival, October 8th, 9th and 10th," <http://www.conroecajuncatfishfestival.com/>. (Last visited January 18, 2010.)
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Infrastructure

A region's economic prospects are determined to a large extent by the quality and scope of its basic infrastructure. In the coming decades, the Gulf Coast region is expected to witness expansive growth. Fortunately, the region should have ample access to the resources needed to continue that growth.

Water

Unsurprisingly, the Gulf Coast's history and fortunes are tied to water. All of Texas' rivers eventually find their way to the Gulf Coast, where river deltas, salt marshes, bays and seawater meet and mingle. The coastal

prairies and metropolitan areas alike receive moist winds from the southeast, punctuated by storms that can come from any direction.

The Gulf Coast region is on the higher end of the state's rainfall scale, ranging from averages of 38 inches annually in Waller County to 54 inches in Chambers and Harris counties, and even more in other places. State-wide average annual rainfall amounts range from 10 inches annually in far West Texas to more than 55 inches in the Beaumont/Port Arthur area.¹

One major aquifer, appropriately named the Gulf Coast aquifer, lies beneath the entire Texas coast, including every county in this region (**Exhibit 24**). In all, the Gulf Coast region tapped surface and groundwater sources for 2,352,592 acre-feet of water in 2006, as estimated by the Texas Water

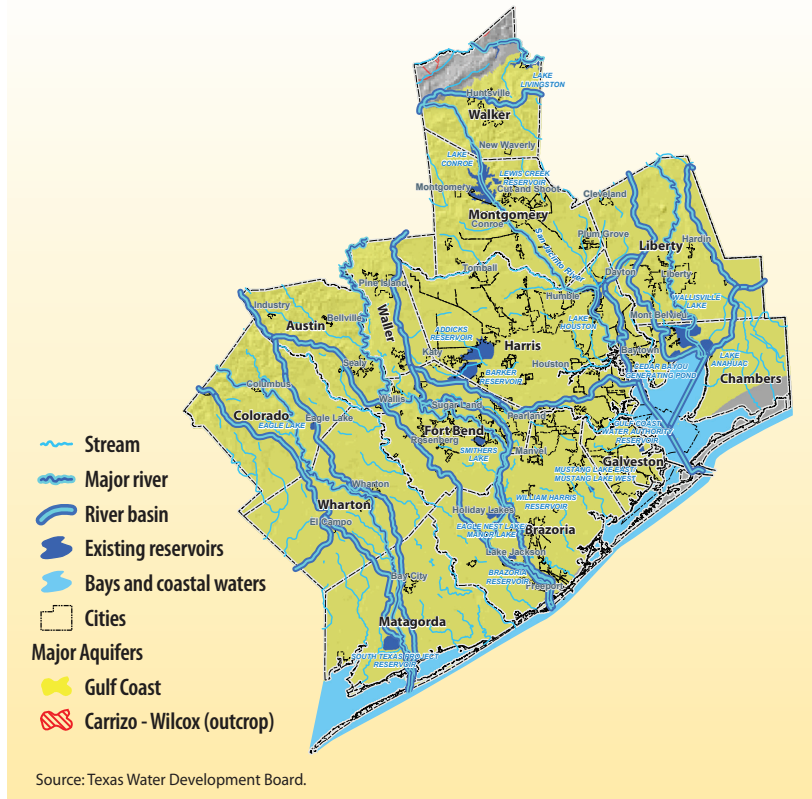


Southwest Freeway, Houston

PHOTO: Greater Houston Convention and Visitors Bureau



Exhibit 24

Gulf Coast Region, Major Surface and Groundwater Features

Development Board (TWDB) using the most recent data available. (An acre-foot is the amount needed to cover an acre of land with a foot of water, or 325,851 gallons, about the annual consumption of two to three Texas households. A regulation Olympic-sized swimming pool holds about two acre-feet.)

The Colorado, Brazos, San Jacinto and Trinity rivers, along with lesser streams, provided the region with 69.2 percent of its total supplies, or 1.6 million acre-feet in 2006. The Gulf Coast aquifer's 724,578 acre-feet accounted for 30.8 percent of the total.

The region's municipalities consumed the largest share (36.8 percent) of its water in 2006, at 865,986 acre-feet. Irrigation accounted for 725,844 acre-feet (30.9 percent) of water use, while manufacturing accounted for the third-largest portion at 25 percent or 589,255 acre-feet.

Of the remaining sectors, steam-electric plants (which convert water to steam to produce electricity) consumed 5.7 percent of the total, while mining and livestock used 1 percent and 0.6 percent, respectively (**Exhibit 25**).

Of the three sectors that use nearly 93 percent of the region's water, only municipal use is fairly evenly divided between groundwater and surface water; irrigation and manufacturing get the vast majority of their supplies from surface waters. Less than 31 percent of the region's total supply comes from underground (**Exhibit 26**).²

In 1997, Texas Senate Bill 1 required TWDB to divide the state into 16 regions under the administration of regional water planning groups (RWPGs). Most of the Gulf

Exhibit 25

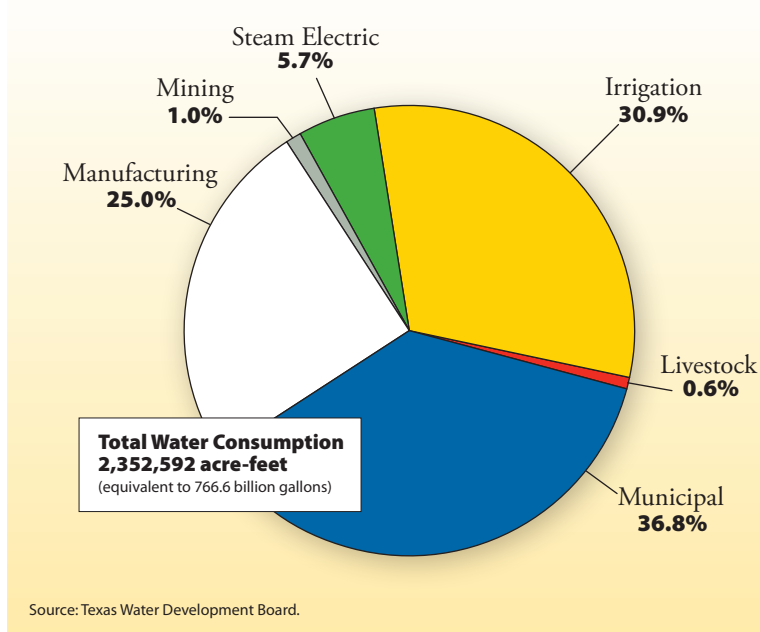
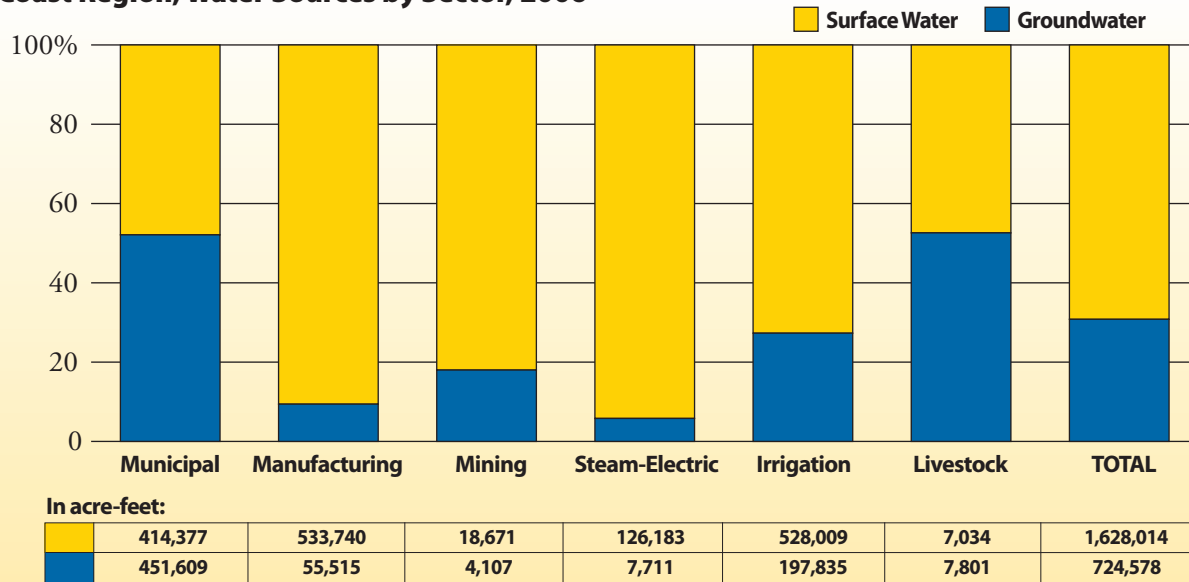
Gulf Coast Region, Total Water Use, 2006



Exhibit 26

Gulf Coast Region, Water Sources by Sector, 2006

Sources: Texas Water Development Board and Texas Comptroller of Public Accounts.

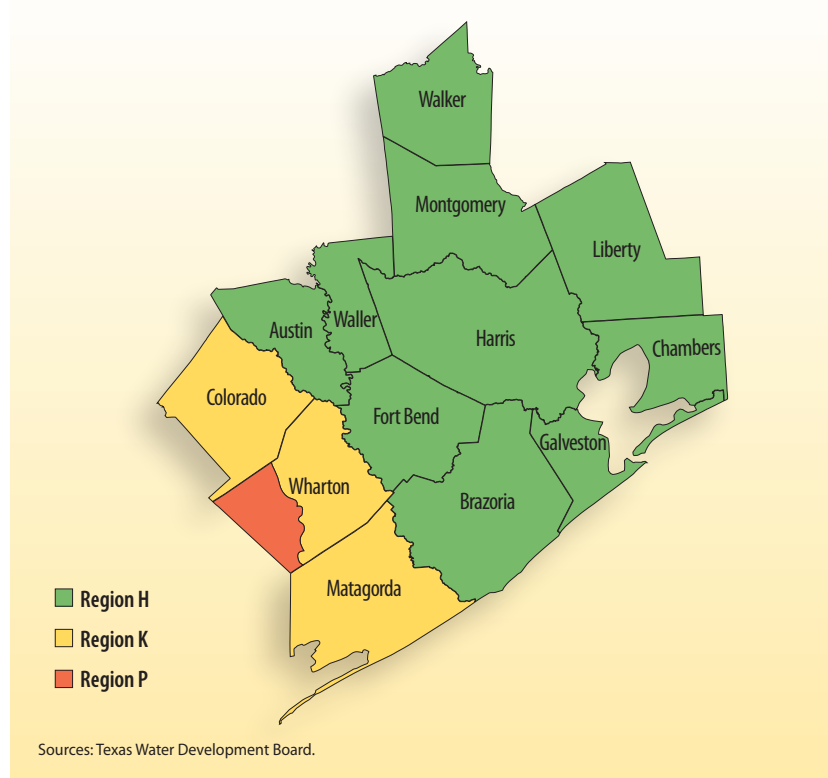
Coast region lies in Region H, with its three westernmost counties being part of Region K (Lower Colorado). One county, Wharton, is divided between Region K and Region P (Lavaca) to the west (**Exhibit 27**).³

SB 1 requires various stakeholder groups to be represented on RWPGs, including agricultural, municipal, environmental and business interests, electric generating utilities, water districts and river authorities. Each RWPG also may add other representatives at will.⁴

SB 1 requires RWPGs to evaluate their current water supplies and estimate their supplies and uses over a 50-year period; the current planning horizon extends to 2060. Based on 2000 data, the Gulf Coast region's overall water use is projected to rise by 41 percent to 4,103,005 acre-feet in 2060.

Irrigation is the only category of water use expected to decline by 2060, by 17.4 percent, to 982,162 acre-feet. Steam-electric

Exhibit 27

Gulf Coast Region Regional Water Planning Groups



use is expected to rise to 319,811 acre-feet annually, an increase of 114.3 percent, slightly ahead of the 103.1 percent growth in municipal use, although the volumes of water used in the cities are expected to be much larger (1,731,548 acre-feet in 2060). Manufacturing water use is projected to increase significantly (51.3 percent) by 2060, up to levels similar to that for irrigation (965,361 acre-feet in 2060), while mining uses are expected to rise to 91,025 acre-feet annually, a 33.6 percent growth. Water use for livestock is not expected to change significantly (**Exhibit 28**).⁵

The steep increase expected in municipal use, as well as the growth of the steam-electric sector, are driven in large part by demand from Harris County.

The county has about 68 percent of the region's population and accounted for 70.2 percent of its municipal water use in 2000; its share is expected to be nearly 63 percent in 2060. Its portion of the region's water use for electrical generation is expected to rise from about 5.1 percent to nearly 14.5 percent by 2060. These fast-growing sectors will

help drive Harris County's projected share of the region's total water use from 33.4 percent to nearly 40 percent by 2060.⁶

Surface Water

Many smaller streams and bayous supplement the Gulf Coast region's four major rivers as they wind towards the coast. One river, the San Jacinto, is entirely contained within the region, while the Colorado River runs from the New Mexico border down to Matagorda Bay. The Brazos and Trinity rivers both have long runs from north Texas to the Gulf of Mexico, the Brazos arriving near Freeport and the Trinity, like the San Jacinto, emptying into upper Galveston Bay.

Much of the region's surface water supply is taken directly from the rivers rather than from reservoirs. In fact, only four of the region's 15 reservoirs have any water supply yield projected for the year 2010, although three other "system" reservoirs contribute to those yields. Although the storage capacity for the region's reservoirs is about 1.4 million acre-feet, their projected yield in 2010 is less than 361,000 acre-feet (**Exhibit 29**).⁷

Much of the region's surface water supply is taken directly from the rivers rather than from reservoirs.

Exhibit 28

Gulf Coast Water Use by Sector, 2000-2060 (acre-feet)

Sector	2000 Actual	2020 Projected	2040 Projected	2060 Projected
Irrigation	1,188,602	1,100,864	1,044,392	982,162
Livestock	13,098	13,098	13,098	13,098
Manufacturing	638,040	796,505	900,539	965,361
Mining	68,149	81,372	86,398	91,025
Municipal	852,667	1,117,657	1,391,652	1,731,548
Steam Electric	149,220	192,685	256,974	319,811
Total	2,909,776	3,302,181	3,693,053	4,103,005

Source: Texas Water Development Board.



Exhibit 29

Gulf Coast Region, Major Lakes and Reservoirs

Lake/Reservoir Name	River Basin	Year 2010 projected yield (acre-feet)	Conservation Storage Capacity (acre-feet)
Addicks Reservoir	San Jacinto	No WS	200,800
Anahuac, Lake	Trinity	14,326	35,300
Barker Reservoir	San Jacinto	No WS	209,000
Brazoria Reservoir	Brazos	Pass-through	21,970
Cedar Bayou Generating Pond	Trinity-San Jacinto	Cooling	13,750
Conroe, Lake	San Jacinto	79,800	416,188
Eagle Lake	Colorado	Sys. Op.	9,600
Eagle Nest Lake/Manor Lake	Brazos	0	18,000
Gulf Coast Water Authority Reservoir	San Jacinto-Brazos	98,805	7,308
Houston, Lake	San Jacinto	168,000	128,863
Lewis Creek Reservoir	San Jacinto	0	16,400
Smithers Lake	Brazos	0	18,700
South Texas Project Reservoir	Colorado	Sys. Op.	202,600
Wallisville Lake	Trinity	Sys. Op.	58,000
William Harris Reservoir	Brazos	No WS	9,200
Total		360,931	1,365,679

Note: No WS – No water supply function; Sys. Op. – Reservoir operated as part of a system, no individual yield total available.
Source: Texas Water Development Board.

The Gulf Coast region includes two of the state's coastal bays, Matagorda Bay and Galveston Bay, the state's largest. Fresh water from rivers flowing into bays and estuaries is critical to maintaining ecosystems that support the state's coastal fishing, shrimp, oyster and tourism industries.

Groundwater

As noted above, the Gulf Coast region has only one major aquifer, the Gulf Coast Aquifer, which, along with a very small amount of groundwater from a minor aquifer called the Brazos River Alluvium, provides about 30 percent of the region's water supply. Aquifers

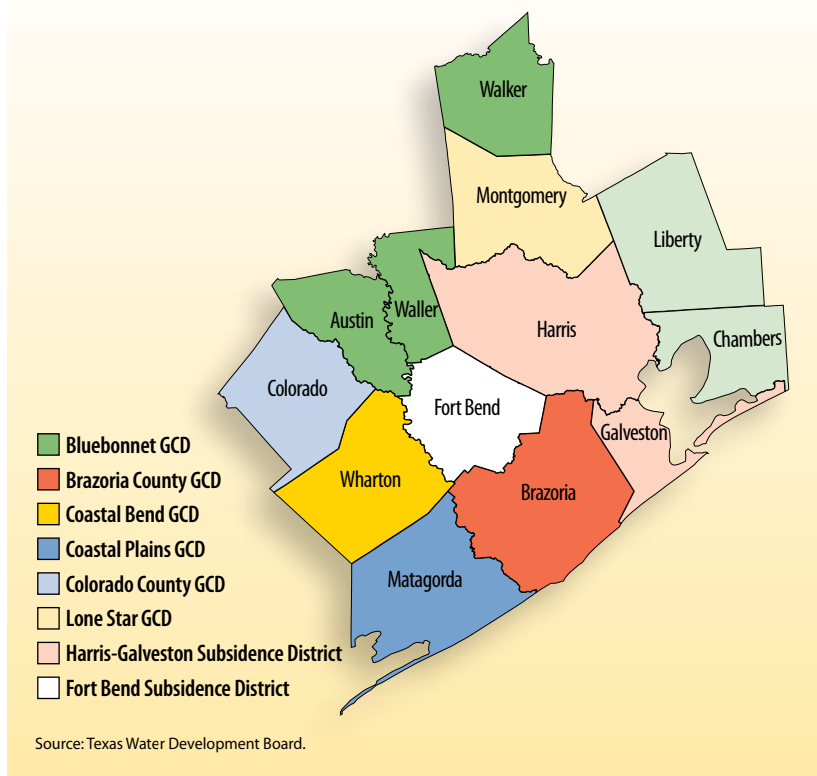
are water-bearing layers of permeable rock, sand or gravel. They can be shallow or deep, with waters that are fresh, brackish or saline. In the case of the Gulf Coast, the freshwater-saturated layers are about 1,000 feet thick and the water quality in the section under the region is considered good.

The Gulf Coast region's heavy use of groundwater, however, has become problematic in some areas, due to the phenomenon known as "subsidence." Removing large amounts of groundwater lowered the water level in the aquifer's layers of clay and sand and as a result the strata have compacted and the land above has settled.

The Gulf Coast region's heavy use of groundwater, however, has become problematic in some areas, due to the phenomenon known as "subsidence."



Exhibit 30

Gulf Coast Region, Groundwater Conservation Districts

infrastructure, will fall by 32 percent between 2010 and 2060. The regional planning groups collectively anticipate a 22 percent fall in state supplies over the same period.⁸

Texas laws passed in 1999 and 2001 encourage the use of groundwater conservation districts (GCDs), led by locally elected or appointed officials, to manage groundwater sources. These districts allow for some local control over the pumping and export of groundwater resources, to which landowners may have extensive property rights.

In the Gulf Coast region, only Liberty and Chambers counties are not covered by a GCD or, in the case of Fort Bend, Harris and Galveston counties, a subsidence district. The Harris-Galveston and Fort Bend Subsidence Districts are unique in the state and, although they predate the law that authorized the GCDs, they have similar powers to regulate groundwater use (**Exhibit 30**).⁹

GCDs generally follow county boundaries, but aquifers underlie multiple counties, which can make groundwater management complex and disjointed. To provide for greater cohesiveness, state law requires TWDB, together with the Texas Commission on Environmental Quality, to create Groundwater Management Areas, or GMAs. Groundwater districts within GMAs must meet at least annually to develop mutually agreeable “desired future conditions” for the aquifers based on TWDB models and other hydrology information. Once an amount is determined, RWPGs within the GMA may use the data for planning, and GCDs may issue groundwater withdrawal permits within the amount of “managed available groundwater” determined by the GMA.¹⁰

(text continued on Page 74)

In parts of Harris and Galveston counties, the ground level dropped from one to nine feet during the 20th century. Consequently, several counties in the region have shifted significant portions of their groundwater use to surface water supplies, although identifying those new sources can be challenging, since the water in many Texas rivers is already fully allocated to permit holders (whether that water “right” is being used or not).

This situation is only a piece of a larger, statewide problem — that of shrinking groundwater supplies. Both TWDB and all regional planning groups anticipate a statewide reduction in groundwater supplies. TWDB projects that Texas’ groundwater supplies, assuming current permits and

The Harris-Galveston and Fort Bend Subsidence Districts are unique in the state and, although they predate the law that authorized the GCDs, they have similar powers to regulate groundwater use.



Air Quality

The Texas Commission on Environmental Quality monitors the Air Quality Index (AQI) for the Houston-Galveston-Brazoria region on a daily basis. This eight-county region, encompassing Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller, has failed to meet clean air standards and thus became subject to a federally mandated state implementation plan (SIP) outlining strategies to bring the region into compliance with national ozone standards.¹¹

As of October 2008, the Environmental Protection Agency (EPA) reclassified the area from a moderate to severe “nonattainment” zone and gave Texas until 2019 to achieve full attainment of clean air standards. This change in status extended a previously established compliance deadline of 2010. Failure to meet this target could lead to the loss of federal highway funds.

The Air Quality Index produces a ranking based on the presence of five air pollutants — ground-level ozone, particle pollution, carbon monoxide, sulfur dioxide and nitrogen dioxide. The EPA assigns a classification based on the AQI score, rating air quality from “good” (no risk), to “hazardous” (emergency conditions).¹²

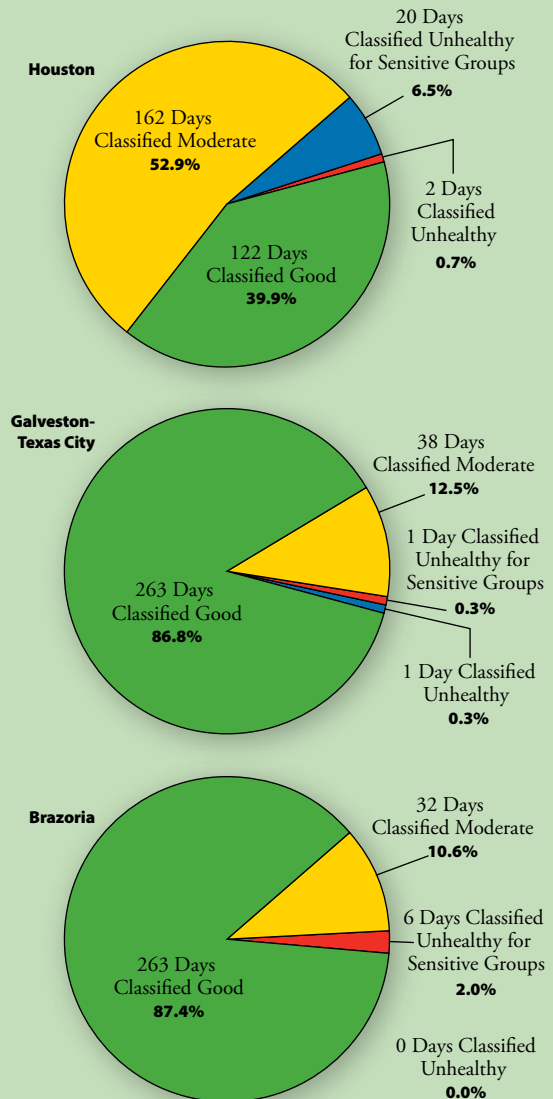
According to the EPA, in 2008 Houston recorded AQI levels in the “unhealthy” or “unhealthy for sensitive groups” range on 22 days (7.2 percent of the 306 days on record). Brazoria County reached this level on six days while Galveston-Texas City recorded two such days in 2008. In 2007, the U.S. Supreme Court ruled the EPA has the authority under the Clean Air Act to regulate carbon dioxide and other greenhouse gases as harmful pollutants. As of December 2009, the EPA has proposed greenhouse gas emission standards, however these new regulations are still in development. If adopted as originally proposed, they could have an impact on the Gulf Coast economy.¹³

Climate

Texas’ Gulf Coast climate supports a landscape dominated by prairies and marshes. It is one of the state’s wettest regions, with average annual rainfall ranging from 38 inches in the driest counties to more than 57 inches in some areas of Brazoria County.

The region’s first freeze generally occurs between December 1 and December 16 and the last freeze typically occurs between February 14 and March 1. Average lows in January range from 37 degrees in Colorado County to 50 degrees in Galveston County; average highs in July range from 92 degrees in Liberty and Matagorda counties to 96 degrees in Colorado County.¹⁴

Selected Air Quality Ratings



Source: U.S. Environmental Protection Agency.



Transportation

The Texas Department of Transportation (TxDOT) directs its maintenance and construction activities from district offices located throughout the state. The department serves Gulf Coast residents from area offices in Angleton, Houston, Rosenberg, La Marque, Conroe, Humble, Wharton and Liberty. Spending and construction activities for the region are concentrated in Harris County, which has projects costing an estimated \$10.4 billion under way. Brazoria County is the second-busiest, with \$2.7 billion in projects.¹⁵ The department's spending tends to center on a few main roads, including:

- State Highway 99, currently running south from Interstate 10 in Harris county to just north of US 90A, and southwest from Interstate 10 to FM 1405 in Chambers County;
- Interstate Highway 45, running northwest from Galveston through Harris, Montgomery and Walker counties toward Dallas;
- State Highway 288, running north from Freeport in Brazoria County toward Houston in Harris County;
- U.S. Route 59, running northeast from southwest Texas through Wharton, Harris, Montgomery and Liberty counties;
- State Highway 35, running southwest from Houston through Harris, Brazoria and Matagorda counties toward Corpus Christi;
- U.S. Route 290, running northwest from Houston through Harris and Waller counties;
- Interstate Highway 10, running west from Louisiana through Chambers,

Harris, Waller, Austin and Colorado counties;

- Interstate Highway 610, forming the inner loop around downtown Houston; and
- State Highway 146, running south from Livingston through Liberty, Chambers, Harris and Galveston counties toward Texas City.¹⁶

Exhibit 31 displays funded projects in the region estimated to cost more than \$25 million each. The costliest initiative is the construction of an interchange connection ramp for Interstate Highway 610 in Harris County. The project will cost an estimated \$242 million and is funded by state-issued general obligation bonds authorized.¹⁷

Stimulus funds released under the American Recovery and Reinvestment Act will finance two of the largest projects in the region. As **Exhibit 31** demonstrates, the money will be used to fund construction on Beltway 8 and Interstate Highway 610. An additional \$476 million in stimulus money was allocated for projects pertaining to segment E of State Highway 99 (Grand Parkway or SH 99). However, TxDOT has since reallocated the funds at the request of the Harris County Commissioner's Court.¹⁸

The region has a total of 5,486 centerline miles (miles traveled in a single direction regardless of the number of lanes) and 15,531 lane miles of state highways (**Exhibit 32**). Its 4.8 million vehicles — 64.3 percent of them registered in Harris County — travel 98.2 million miles every day. The state's road network comprises 79,975 centerline miles, 192,542 lane miles and 21.2 million registered vehicles that travel 488.8 million miles every day.¹⁹

(text continued on Page 76)

The region's 4.8 million vehicles — 64 percent of them registered in Harris County — travel 98.2 million miles every day.



Exhibit 31

Selected Highway Projects and Associated Costs, Gulf Coast Region

Highway or Road	County	Description	Segment	Estimate	Stimulus Funding
IH 610	Harris	Construct Interchange Direct Connection Ramp	West of 34th St on US 290 to North of IH 10 on IH 610	241,927,013	
IH 45	Harris	Widen Roadway	Nyack Rd to South of FM 1959	58,103,232	
BW 8	Harris	Construct Freeway Ramps	US 59 North	56,171,343	✓
IH 610	Harris	Rebuild Roadway	East of Ella to IH 45	50,097,439	✓
US 59	Montgomery	Widen Roadway	Liberty County Line to South of FM 2090	46,426,104	
FM 1488	Montgomery	Construct New Roadway Lanes	East of FM 149 to FM 2978	41,184,010	
CR	Harris	Widen Roadway	Beamer Rd to Tallship Ln	39,998,830	
FM 646	Galveston	Widen Roadway	FM 517 to FM 1764	36,303,120	
SH 105	Liberty	Construct New Road	SH 105 to West of FM 1010	35,449,828	
SH 35	Brazoria	Widen Roadway	Harris County line to FM 518	29,565,989	
CR	Brazoria	Construct New Roadway Lanes	CR 48, CR 894 to SH 6	25,987,652	

Source: Texas Department of Transportation.

Exhibit 32

Highway Miles, Vehicle Miles Driven and Registered Vehicles, Gulf Coast Region, 2008

County Name	Centerline Miles	Lane Miles	Daily Vehicle Miles	Registered Vehicles
Austin	287	614	1,359,736	37,076
Brazoria	476	1,294	4,679,734	279,616
Chambers	309	744	2,431,195	38,468
Colorado	330	761	1,600,455	27,082
Fort bend	434	1,182	6,381,407	429,422
Galveston	332	1,059	4,880,887	259,329
Harris	1,181	4,882	59,872,287	3,076,623
Liberty	368	817	2,092,655	76,252
Matagorda	319	691	744,092	37,396
Montgomery	477	1,219	8,347,427	385,240
Walker	343	799	2,342,963	48,341
Waller	235	584	1,848,701	42,665
Wharton	395	885	1,648,643	45,998
Region Total	5,486	15,531	98,230,182	4,783,508
Statewide Total	79,975	192,542	488,790,361	21,171,729

Source: Texas Department of Transportation.



Two of six major highways designated as “Corridors of the Future” by the U.S. Department of Transportation make their way through the region.

While the region’s roads represent fewer than 8 percent of the state’s centerline and lane miles (7 and 8 percent respectively), 23 percent of all state vehicles are registered in the region’s counties, a situation contributing to severe traffic congestion. Houston is particularly vulnerable to traffic delays; 39 of the state’s 100 most congested highway segments are located in and around Harris County. The Texas Transportation Institute ranks the city 11th most-congested in the country. Houston drivers face an average of 56 hours of traffic delays annually.

Gulf Coast road construction for state, local and private sources accounted for 15,185 jobs and \$650.8 million in earnings in 2008.²⁰

Trade Corridors

Texas is a major entry and exit point for international trade, leading the nation in export revenues with \$192.1 billion in 2008.²¹ The Gulf Coast region in particular serves a critical role as a transshipment site for goods traveling by sea. Trade corridors running through the area link ports to major metropolitan areas and provide passage for north-south and east-west freight traffic.

Two of six major highways designated as “Corridors of the Future” by the U.S. Department of Transportation make their way through the region: Interstate 10, running east to west from Florida to California, through Chambers, Harris, Fort Bend, Waller, Austin and Colorado counties; and the proposed Interstate 69, a superhighway that will extend from Mexico to Canada through Wharton, Fort Bend, Harris, Montgomery and Liberty counties (**Exhibit 33**). The two highways were selected based on their importance as interstate freight routes and their resulting susceptibility to congestion.²²

Interstate 10

Within Texas, I-10 links El Paso, San Antonio, Houston and Beaumont. The segments between Houston and the Louisiana border, and between Houston and San Antonio, are the third- and fifth-busiest of the state’s international trade corridors in terms of volume moved by truck. According to the Department of Transportation, I-10 carries 22 percent of all NAFTA traffic through the state.²³

Interstate 69

I-69 is an eight-state initiative to build a 1,600-mile highway linking Mexico and

Exhibit 33

Gulf Coast Region Highways



Source: Texas Department of Transportation.



Canada. While its exact route is yet to be determined, it will originate in Texas and proceed north to Michigan. The thoroughfare will combine 360 miles of existing roadways with newly constructed segments. Its proposed path traverses Texas from the state's southernmost tip (in the Rio Grande Valley or possibly Laredo), and extends north to the Texarkana/Shreveport area, following US Highway 59 through Victoria, Houston, Lufkin and Nacogdoches.²⁴

Interstate 45 and U.S. Highway 59

Two other major roads make their way through the region. I-45 runs northwest from Galveston, connecting Houston and Dallas. The second, US 59, runs from the Mexican border at Laredo in south Texas to the Texas-Arkansas border near Texarkana, and continues north to Minnesota and the Canadian border. TxDOT has designated US 59 as one of four priority corridors that it will focus on this decade. The roadway carries about 6 percent of the state's NAFTA traffic.²⁵

Railways

Railways are an essential component of the Gulf Coast's transportation infrastructure, providing freight services that support the petrochemical industries and facilitate the transfer of its products to ports on the coast.

Houston and Galveston are important rail centers, with five rail yards between them. Two Class I rail lines, Union Pacific and Burlington Northern Santa Fe Railway (BNSF), operate in the region (**Exhibit 34**).

Union Pacific provides the most comprehensive coverage of the area, with lines extending from Houston to every county in

the region. BNSF also has a significant presence in the region. A line heads northwest from Galveston to Hillcrest Village where the route diverges, continuing northwest through Austin via Brazoria and Fort Bend counties and north to Harris County, where it breaks and heads northwest again through Montgomery County.²⁶

Amtrak offers passenger service on its Sunset Limited route that runs from New Orleans to Los Angeles. The trains depart three times a week and make stops in Beaumont and Houston.²⁷

Houston and Galveston are important rail centers, with five rail yards between them.

Public Transportation

Several providers in the Gulf Coast region offer public transportation services (**Exhibit 35**).

Exhibit 34

Gulf Coast Region Rail Lines

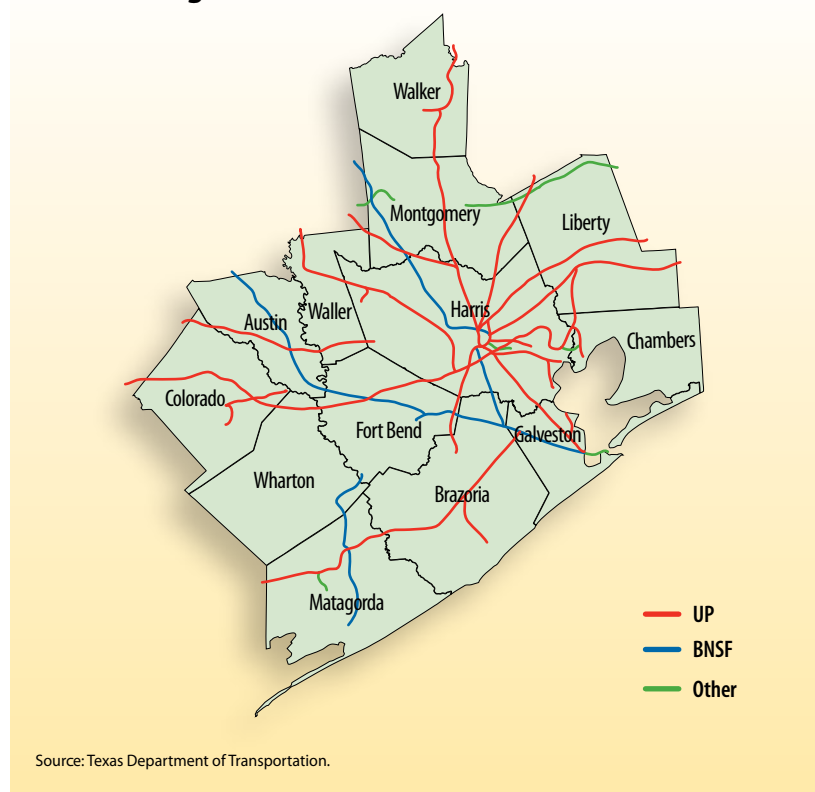




Exhibit 35

Public Transportation Resources, Gulf Coast Region

Public Transit Authorities	Office Locations	Counties Served
Brazos Transit District	City of Bryan	Liberty, Montgomery, Walker
Colorado Valley Transit	City of Columbus	Austin, Colorado, Waller
Fort Bend County Rural Transit District	City of Sugar Land	Fort Bend
Golden Crescent Regional Planning Commission R Transit	City of Victoria	Matagorda
Gulf Coast Center Connect Transit	City of Texas City	Brazoria, Galveston
Island Transit	City of Galveston	Galveston
Metropolitan Transit Authority of Harris County	City of Houston	Harris

Source: Texas Department of Transportation.

George Bush Intercontinental is the region's major international air gateway, with flights to more than 170 destinations. Nearly 43 million passengers passed through this airport in 2008.

Harris County's Metropolitan Transit Authority (METRO) serves the region's largest urban area, providing commuter services including bus, light rail, vanpool and ride-share programs in a 1,285-square-mile service area. Harris County also provides transportation services to residents outside of the METRO service area through Harris County Transit.²⁸

Island Transit serves the city of Galveston. It operates seven bus routes covering a total of 27 square miles, and a street trolley that covers six miles including the downtown area. The District provides bus services in Montgomery and Walker counties, and waterway cruises through the Woodlands corridor. Colorado Valley Transit serves Austin, Colorado, Waller and Wharton counties. Connect Transit serves Brazoria and Galveston counties. Fort Bend County provides bus service for its residents, while the Golden Crescent Regional Planning Commission subcontracts for transportation for residents of Matagorda County.²⁹

Airports

The Gulf Coast region is home to 47 public use airports, including two commercial service airports. Houston's airport system comprises two commercial airports, George Bush Intercontinental and William P. Hobby, as well as a third facility, Ellington Airport. Together, the three airports make up one of the nation's largest multi-airport systems, currently ranked fourth nationally and sixth internationally.³⁰

George Bush Intercontinental is the region's major international air gateway, with flights to more than 170 destinations. Nearly 43 million passengers passed through this airport in 2008. In that year, the airport was the eighth-busiest U.S. passenger airport, the eighth-largest U.S. gateway for nonstop travel and the 17th-largest for cargo operations.

Seventeen passenger airlines currently operate out of the 10,000-acre facility, including Aero Mexico, Air Canada, Air France, Alaska Airlines, American Airlines,



NASA's Johnson Space Center

The Soviet Union kicked off the "space race" era in 1957, when it orbited its Sputnik I and II satellites. The U.S. responded by launching the Explorer 1 satellite in January 1958.

The National Aviation and Space Administration (NASA) evolved from several Defense Department space projects and the existing National Advisory Committee for Aeronautics. NASA was officially formed on October 1, 1958 as a new civilian agency in charge of space research and exploration.³¹

On September 19, 1961, southeastern Harris County was chosen as the new home for the NASA's Manned Spacecraft Center (MSC). This \$60 million facility was located on 1,000 acres of land made available by Rice University. NASA also purchased another 620 acres to give the site frontage on a highway. By June 1967, NASA and its contractors in the Clear Lake area employed about 5,100.³²

The MSC was renamed for the late President Lyndon Johnson on August 27, 1973. In the years ahead, the Johnson Space Center (JSC) became the home for the Skylab, Space Shuttle and International Space Station programs.

As of December 14, 2009, JSC is a complex of 142 buildings that employs about 3,400 civil servants and more than 13,000 contract employees. JSC generates \$3.5 billion per year in the Houston-area economy and supports about 35,000 jobs.

Announced on February 1, 2010, NASA's budget will increase by \$6 billion resulting in a \$100 billion total budget for fiscal years 2011-2015. This increase will be used primarily to develop commercial spaceflight to the International Space Station and continued exploration of the solar system through the use of robotics. The Constellation Program, which would have returned humans to the Moon by 2020, was cancelled and the Space Shuttle program is scheduled to be retired.³³



Johnson Space Center, Houston

PHOTO: Greater Houston Convention and Visitors Bureau

British Airways, Continental Airlines, Delta Air Lines, Emirates Airline, Frontier Airlines, KLM Dutch Airlines, Lufthansa, Qatar Airways, Singapore Airlines, TACA, United Airlines and US Airways. Houston-based Continental Airlines manages its largest hub at George Bush Intercontinental, currently offering about 700 daily departures.³⁴

William P. Hobby Airport, the smaller of the two commercial airports, is a 1,304-acre

facility providing flights to 32 domestic destinations.³⁵ In 2008, it served 8.8 million passengers. Five passenger airlines have regularly scheduled flights from Hobby Airport, including AirTran Airlines, American Airlines, Delta Air Lines, JetBlue Airways, and Southwest Airlines. Southwest Airlines operates its largest hub from this location.

Ellington Airport, a joint-use military/civilian airport, is located on 2,362 acres 15



miles southeast of Houston's central business district. Airport tenants include the U.S. military, NASA, the Texas Army National Guard and Delta Connection Academy. Ellington Airport also hosts the Commemorative Air Force's annual Wings Over Houston air show.³⁶

Ports

Gulf Coast ports have a considerable impact on the region's economy, contributing to the more than \$135 billion generated by Texas ports each year. The region's four ports, in Freeport, Galveston, Houston and Texas City, accounted for 15 percent of the nation's total oceangoing vessel calls and 5 percent of its waterborne foreign container shipments in 2008. The Houston port alone was the sixth-largest trade gateway in the U.S. (by value of shipments) in 2007.³⁷

The ports also serve a pivotal role in supporting the region's petrochemical industries. Together, Houston, Texas City and Freeport handled 27 percent of the nation's petroleum and chemical tanker calls in 2008.³⁸ Houston is the nation's largest port for petroleum and chemical tanker calls by a significant margin, handling more than 19 percent of the nation's tanker calls in 2008.

The Port of Houston, made up of the Houston Port Authority and the Houston Ship Channel, has served as a catalyst for the region's development and has been instrumental in the establishment of more than 150 private industrial companies around the port. The Houston Ship Channel provides convenient access to nearby Texas oilfields.³⁹

The Gulf Intracoastal Waterway (GIWW) links Texas ports, including those of Texas

City, Freeport and Galveston, to a 1,300 mile canal extending from Texas to Florida. The waterway completes almost a third of its course in Texas, where it runs northeast along the coast from Brownsville. While the Port of Houston is not directly on the waterway, it has access to it via Galveston Bay. The waterway is the nation's third-busiest. In 2006, the Texas segment of the waterway processed more than \$25 billion worth of goods, 87 percent of them petroleum or chemical products.⁴⁰ For more information on Gulf Coast ports, see "Sea Ports and Trade" on p. 42.

Parks and Recreation

The Gulf Coast region is home to several state parks and historic sites that showcase its scenic beauty and cultural heritage. The state park with the most significant economic impact in 2006 was Galveston Island State Park, which was heavily damaged by Hurricane Ike in September 2008 and closed to the public for several months as a result. The park has been partially restored and reopened to day visitors in March 2009, with both Bayside and Beachside camping areas opened in July. The region's park receiving the largest number of visitors in fiscal 2008 is the San Jacinto Battlefield/Battleship Texas Complex (**Exhibit 36**).

In addition to these parks, the region has several state wildlife management areas (WMAs). Most are primitive, lacking facilities and drinking water, and are primarily dedicated to wetland and ecosystem preservation along with hunting. Birdwatchers, however, are likely to be familiar with some of the areas, such as the Candy Cain Abshier

Houston is the nation's largest port for petroleum and chemical tanker calls by a significant margin, handling more than 19 percent of the nation's tanker calls in 2008.



WMA and Mad Island WMA, due to their location on major migratory pathways. The Gulf Coast region is also home to numerous county and local parks. Houston in particular has many well-known parks, including Hermann Park, Buffalo Bayou Park and Sam Houston Park, the city's first.⁴¹

The Sam Houston National Forest, about 50 miles north of Houston, is one of four in Texas. Evidence of human occupation in the forest dates back 12,000 years. The forest was previously home to Atakapan-speaking groups who were displaced by European settlers; a number of archeological sites in the forest are off-limits to visitors. The forest is managed under the Multiple-Use Sustained-Yield Act of 1960, which authorizes the U.S. Secretary of Agriculture to maintain natural surface resources in national forests in the most sustainable, ecologically viable way possible.

The forest offers several recreation opportunities, including the 128-mile Lone Star Hiking Trail, a portion of which follows the

banks of Lake Conroe and heads west toward the Little Lake Creek Wilderness area. The forest also includes three developed campgrounds, some featuring full-service hook-ups, picnicking units and bike trails. Boating and fishing activities are also allowed in the forest.

The forest allows hunting, with deer as the most popular game animal. It also provides excellent habitat for endangered bald eagles, which are often sighted in the winter. Other endangered species found in the forest include the red-cockaded woodpecker, with its distinctive large white cheek patches.

Natural resource management is a key component of the forest's continued development. When the federal government purchased the land in 1934, much of it was undeveloped, with many areas denuded by logging. Today, the federal government maintains the forest under a sustainable-yield principle so that it will continue to produce timber to meet future needs. The forest also benefits from a fire management system that

The Sam Houston National Forest, about 50 miles north of Houston, is one of four in Texas. Evidence of human occupation in the forest dates back 12,000 years.

Exhibit 36

Economic Impact of State Parks, Gulf Coast Region

Name	Number of Visitors FY 2008	2006 Total Economic Impact on Sales	2006 Spending by Visitors
Stephen F. Austin State Park	39,331	\$1,411,721	\$667,974
Brazos Bend State Park	187,540	2,116,078	797,215
Galveston Island State Park	176,854	7,354,412	4,729,620
Battleship Texas/San Jacinto Complex	231,662	4,517,213	1,793,917
Sheldon Lake State Park and Environmental Learning Center	51,312	n/a	n/a
Davis Hill State Park (Site closed pending development)	0	0	0
Huntsville State Park	143,936	2,436,257	1,308,735

Note: Economic data were not available for Sheldon Lake State Park.
Sources: Texas A&M University and Texas Parks and Wildlife Department.



not only prevents and suppresses potential fires but also initiates controlled burns preventing the dangerous accumulation of tinder.

Some private entities maintain mineral rights within the forest as part of the federal government's original purchase agreement. These entities can extract minerals including energy resources from the area.⁴²

In 1990, the Texas Parks and Wildlife Foundation purchased and established the 207-acre Candy Cain Abshier Wildlife Management Area in Chambers County, along Galveston Bay and Trinity Bay. Candy Cain Abshier WMA is a mix of coastal plains, live oak stands and freshwater ponds that

attract diverse wildlife, named in honor of Catherine "Candy" Cain Abshier, a former employee of Texas Parks and Wildlife.

Candy Cain Abshier WMA is best known as a popular stopover spot for migrating birds. Each August through November the Gulf Coast Bird Observatory sponsors the popular hawk watch. While birds of prey are annual visitors, it is not uncommon to see hummingbirds, swallows and flocks of wood storks. Thousands of migrating birds in the spring and fall make the Candy Cain Abshier WMA a popular stop along the Great Texas Coastal Birding Trail.⁴⁴

Recreational Lakes and Reservoirs

Only two of the Gulf Coast region's water-supply reservoirs, Lakes Conroe and Houston, are also used for recreation purposes; many of the reservoirs are privately owned by industry or power companies. Lakes in two of the region's state parks offer fishing opportunities (**Exhibit 37**).

Hunting and Fishing

Texas Parks and Wildlife Department (TPWD) sold more than 554,000 licenses to hunters and fishermen in the Gulf Coast region in 2008. These sales generated in excess of \$17 million in revenue, all of which went to a dedicated state fund supporting the conservation and management of the state's fish and wildlife.⁴⁵

Every county in the region offers legal hunting of some sort, and several offer hunting year-round (**Exhibit 38**).

The Gulf Coast region also features freshwater fishing opportunities in its rivers and

Houston Wilderness

For many people, Harris County and its surrounding areas may not seem synonymous with wildlife, parkland and outdoor recreation, but one local nonprofit organization is working to change that. Houston Wilderness was founded in 2002 to serve as an umbrella organization for groups working toward environmental protection and open-space preservation in a 24-county region surrounding greater Houston.

One of the organization's primary goals is the creation of a continuous greenbelt that will one day surround the city of Houston. Once complete, the greenbelt will offer hiking, biking, kayaking and other recreational opportunities for outdoor enthusiasts.

Local officials, business leaders and other citizens have come to recognize that the bayous and beaches of the Gulf Coast region are a potential hub for ecotourism. For this reason, Houston Wilderness is organizing efforts to protect open space in the fast-growing Gulf Coast region. The organization is also active in public schools, working to instill a sense of appreciation and stewardship toward the natural environment. One of the organization's primary goals is to ensure that all of the area's students have participated in at least one school-sponsored outdoor educational experience by the time they have completed seventh grade.⁴³



lakes. Common species in the region include bass, crappie, catfish and sunfish.

Energy

Energy production, consumption and affiliated services are centrally important features of the Gulf Coast Region's economy.

Oil and Gas

All of the region's 13 counties produce oil and gas (**Exhibit 39**). In 2008, the

region produced 11.6 million barrels of oil, 12.5 billion cubic feet of casinghead gas (a mixture of unrefined gases that can include methane, butane and propane), 282.8 billion cubic feet of natural gas and 6.4 million barrels of condensate (natural gas liquids). In 2008, Brazoria County led the region in oil production with 2 million barrels, while Wharton County led the region in natural gas production with 47.9 billion cubic feet.⁴⁶

Exhibit 37

Gulf Coast Region, Recreational Lakes and Reservoirs

Name	Location	Size	Maximum Depth
Lake Conroe	7 miles northwest of Conroe	20,118.0 acres	72 feet
Lake Houston	15 miles northeast of Houston	11,854.0 acres	45 feet
Lake Raven	Huntsville State Park in Walker County	203.5 acres	28 feet
Sheldon Lake	Carpenter Bayou on the edge of Houston	1,230.0 acres	10 feet

Source: Texas Parks and Wildlife Department.

Exhibit 38

Applicable Hunting Regulations, Gulf Coast Region

Animal	Season
White-tailed Deer	Open season lasts from November 7 until January 3. Most counties in the region also have a special youth-only late season in January. Archery season lasts from October 3 until November 6. A special youth-only season occurs from October 31 until November 1.
Pheasant	Chambers and Liberty counties have open season from October 31 – February 28. Bag limit 3 cocks, possession limit 6 cocks.
Squirrel	In Chambers, Galveston, Harris, Liberty Montgomery and Walker counties, squirrel season is open October 1 – February 7 and May 1-31, with a daily limit of 10. In the rest of the region's counties, squirrel season is open year-round with no limit.
Turkey	Spring Season is April 1-30, 2010. Austin, Chambers, Galveston, Harris and Waller counties have no turkey hunting; Colorado County's spring season is for Rio Grande birds, the remaining counties have Eastern turkey hunting, all limited to one gobbler.
Quail	Open season lasts from October 31 until February 28. Daily bag limit: 15; possession limit: 45.
Dove	The season for dove is as follows: Central Zone: September 1 – October 25 and December 26 – January 9. South Zone: September 18 – November 3 and December 26 – January 17.

Source: Texas Parks and Wildlife Department.



Matagorda Bay Nature Park

Matagorda Bay at the mouth of the Colorado River is a prime area for enjoying the beauty and bounty of nature, whether by fishing, bird-watching, hiking or camping on the beach. All these activities and more can be pursued at the 1,600-acre Matagorda Bay Nature Park.

Situated between Matagorda Bay and East Matagorda Bay, the park is adjacent to the county's Jetty Park and near the Mad Island Marsh Preserve and Mad Island Wildlife Management Area. All of these locations are included in the Great Texas Coastal Birding Trail and are considered some of the best birding destinations in the nation.

Matagorda Bay Nature Park has two miles of riverfront as well as a couple of miles of beach bordering its acres of dunes and marshes. The park offers RV hookup sites along with sites for tent camping. There are trails with shaded wildlife viewing spots, four free public fishing piers and a group pavilion. The park has no entrance fees (though there is a charge for RV camping) and is open year-round, providing a wonderful home base from which to explore other nearby natural attractions. The park is within the 15-mile-wide area of the Christmas Bird Count circle, which hosts an Audubon Society one-day birding extravaganza.⁴⁷

Matagorda Christmas Bird Count

Every year for the last 110 years, bird watchers in numerous locations have spent a day from December 14 to January 5 on routes through a 15-mile diameter circular spot, counting every bird they can see. Since 1993, one of the best places to participate in the Audubon Society's Christmas Bird Count (CBC) is in Matagorda County.

The CBC began on Christmas Day in 1900, as an alternative to a competitive holiday hunt in which teams tried to bag the biggest pile of birds in a day. The first CBC had 25 counts in locations mostly in the northeastern U.S. that arrived at a total of 90 different species. Today, CBCs take place in more than 2,000 circles from Canada to Colombia, with tens of thousands of birders taking to the outdoors armed with binoculars — and determination.

The Matagorda CBC circle includes areas that are part of the Great Texas Coastal Birding Trail, including the Mad Island State Wildlife Management Area, the Clive Runnels Family Mad Island Marsh Preserve and the Matagorda Bay Nature Park. These world-class bird-watching locations on a major migratory path have put the Matagorda County CBC in the top five for North American species counts every year since 1993.⁴⁸

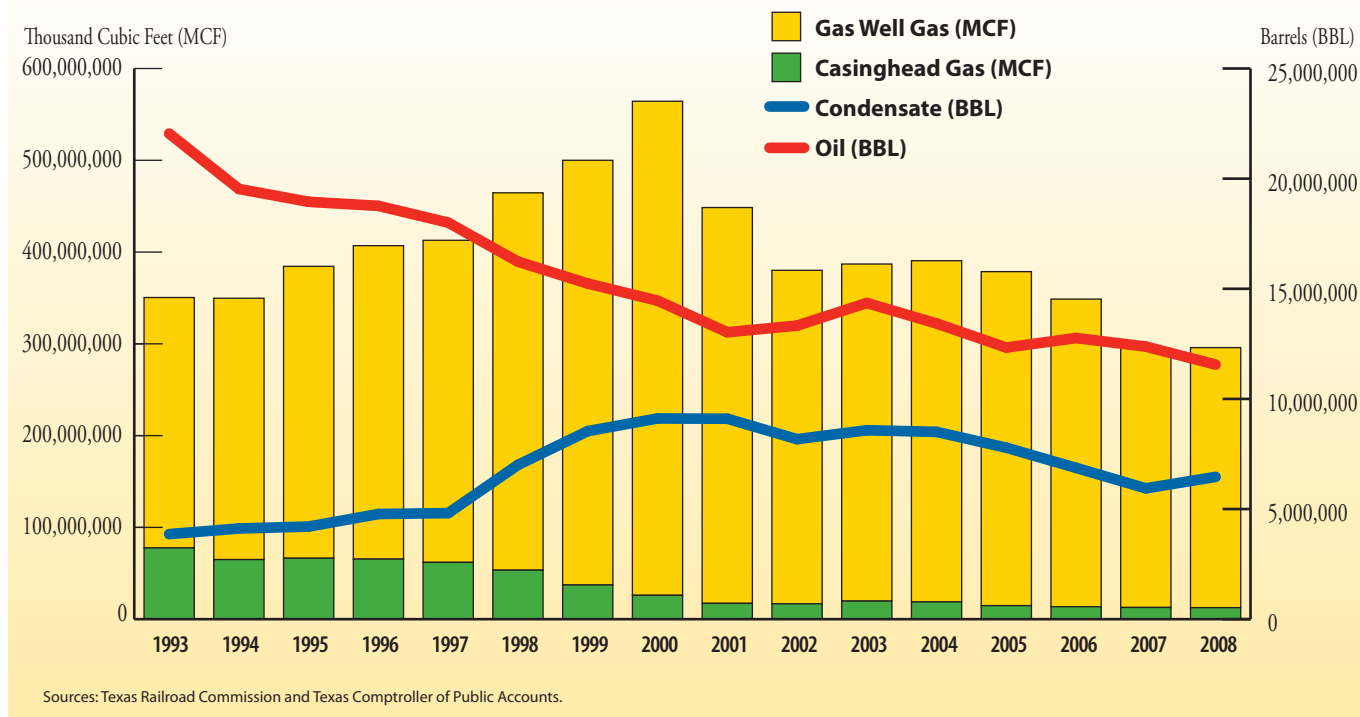
The area in and around Harris County includes the headquarters of several major energy companies. In particular, the Energy Corridor west of downtown Houston is

home to the headquarters of BP, CITGO, ExxonMobil, Shell and ConocoPhillips. For more information on the region's oil and gas industry, see p. 40-41.



Exhibit 39

Gulf Coast Region, Oil and Gas Production



Electricity

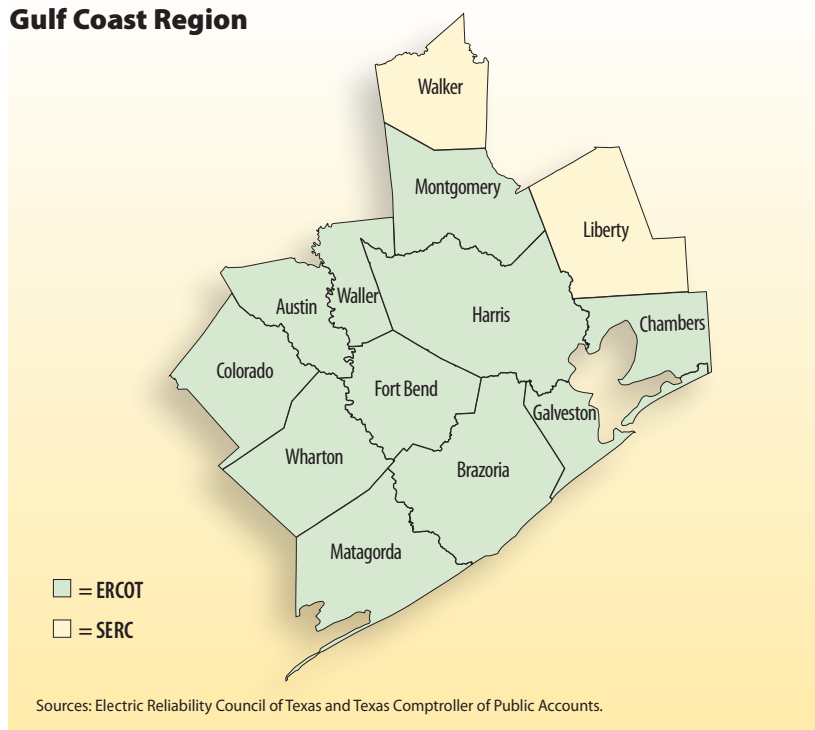
Natural gas is the most common fuel source for electricity generation facilities constructed in the Gulf Coast region since 1995. The region has 27 electricity plants operating or under construction, with a combined capacity of 7,789 megawatts.

Harris County has the largest number of these plants, with 13. There are four plants in Brazoria County, two in Chambers County, two in Fort Bend County, two in Galveston County, one in Matagorda County, one in Montgomery County and two in Wharton County. Twenty-three of these plants use natural gas for fuel, two use landfill gas, one uses nuclear power and one uses coal.⁴⁹

Almost all of the Gulf Coast region lies within the boundaries of the Electric Reliability Council of Texas (ERCOT), the electric

Exhibit 40

Areas in the ERCOT and SERC Electric Grids Gulf Coast Region





South Texas Nuclear Project

The twin reactors of the South Texas Project (STP) in Matagorda County, between Bay City and Palacios in Wadsworth, generate 2,700 megawatts (MW) of electricity each day, enough for about 2 million Texas homes. STP accounts for about 7.5 percent of the state's total electricity generation capacity, and employs about 1,200 full-time personnel.

The STP Nuclear Operating Company (STPNOC) manages the facility, which is co-owned by NRG Energy, Inc. (44 percent), City Public Service of San Antonio (40 percent) and Austin Energy (16 percent). STP is among the nation's newest nuclear facilities, with one reactor entering service in August 1988 and the other in June 1989. At the time of STP's construction, its twin reactors were the largest in the nation, although three up-graded reactors at the Palo Verde facility in Arizona now eclipse them.

Nationally, nuclear power plant licensing halted shortly after STP first went into service, due largely to environmental concerns. But growing worries about the stability of the nation's crude oil supply and damage to the earth's climate have renewed interest in this energy source.

As a result, the operators of both STP and Texas' other nuclear power plant, Comanche Peak located southwest of Fort Worth, have proposed doubling their current facilities. In September 2007, NRG Energy, Inc. and STPNOC filed a Combined Construction and Operating License Application (COLA) with the Nuclear Regulatory Commission — the first such application in 29 years. If approved, NRG expects to bring two new, advanced reactors online by 2015, doubling STP's current electricity output.

The original 12,220-acre site, with its 7,000-acre reservoir for water cooling, was designed to house four nuclear reactors, so no site expansion is needed for the planned up-grade. In addition, STP's proximity to excellent road, rail and shipping facilities along the Gulf Coast make it one of the best sites in the nation for a nuclear facility. NRG expects construction could commence in 2010, generating 4,000 to 6,000 construction jobs, \$9 billion in statewide economic activity during construction and eventually creating 800 new permanent jobs.⁵⁰

grid system that carries 85 percent of the state's electric load. Liberty and Walker counties are in the area administered by the SERC Reliability Corporation, the grid system that covers most of the Southeast U.S. (**Exhibit 40**).

Texas began deregulating its retail electricity market in 2002. This deregulation, however, applies only to investor-owned utilities within the ERCOT region. Utilities owned by cities and rural cooperatives are not required to join the deregulated market.

The Gulf Coast region has two municipally owned utilities and two rural cooperatives (**Exhibit 41**).

Most of the Gulf Coast region is subject to deregulation. In these areas, dozens of private companies compete to provide retail electric service to customers. The residential price per kWh in December 2009, based on a 1,000 kWh per month service plan, ranged from 10.1 cents to 14.9 cents in these areas.⁵¹



Exhibit 41

Gulf Coast Region, Municipally Owned Utilities and Member-Owned Cooperatives

Municipally-Owned Utilities

Entity Name	Counties in Service Area
City of Bellville Utility Department	Austin
Weimar Electric Utilities	Colorado

Member-Owned Cooperatives

Entity Name	Counties in Service Area
San Bernard Electric Cooperative	Austin, Colorado, Lavaca, Waller, Montgomery, Harris, Grimes and Fayette
Wharton County Electric Cooperative	Wharton

Source: Public Utility Commission of Texas, Texas Electric Cooperatives.

Endnotes

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Health Care

Health care is one of the major engines of economic growth in the Gulf Coast region, particularly in the greater Houston area. The health care industry is adding jobs at a rapid pace and accounts for some of the region's largest construction projects.¹

In 2008, the world-renowned Texas Medical Center (TMC) in Houston had a regional economic impact of \$14 billion, according to a TMC-commissioned study.² TMC attracts patients seeking high-quality specialized medical care from throughout the nation and the world. TMC's M.D.

Anderson Cancer Center is consistently ranked first in cancer care in the U.S., and its other hospitals also are highly ranked.

Yet one challenge facing the Gulf Coast region is providing access to primary health care. While Houston is home to some of the nation's finest health institutions, the federal government has designated many of the surrounding rural counties as Health Professional Shortage Areas. Meanwhile, the region's obesity and diabetes rates have risen significantly, adding to its need for more health care professionals.

M.D. Anderson Cancer Center is consistently ranked first in cancer care in the U.S.

Health Care Infrastructure

According to the Federal Reserve Bank of Dallas, from February 2000 to 2008 private health care employment rose faster in Houston (35 percent) than other large Texas metro



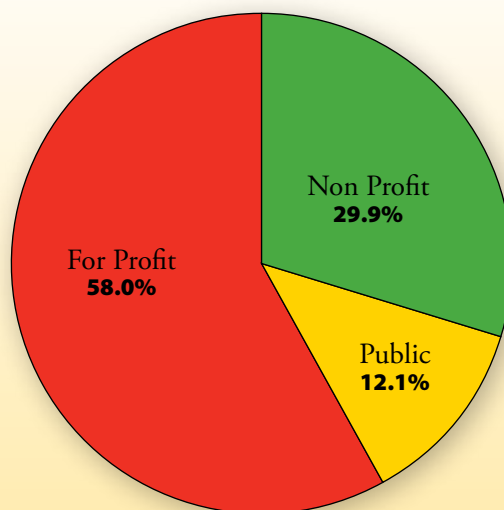
Baylor College of Medicine, Houston

PHOTO: Greater Houston Convention and Visitors Bureau



areas (34.1 percent in Dallas-Fort Worth, 30.5 percent in San Antonio and 25.6 percent in Austin).³ The Texas Medical Center, when considered as a single entity, is the city's largest employer, with 72,600 employees in 2008.⁴

Exhibit 42

Gulf Coast Region Hospital Ownership, 2008

Source: Texas Department of State Health Services.

Exhibit 43

Gulf Coast Region Hospital Districts

County	Hospital District Name
Austin	Bellville Hospital District
Brazoria	Angleton-Danbury Memorial Medical Center Sweeny Hospital District
Chambers	Chambers County Public Hospital District #1
Colorado	Rice Hospital District
Harris	Harris County Hospital District
Liberty	Liberty County Hospital District #1
Matagorda	Matagorda County Hospital District
Montgomery	Montgomery County Hospital District
Walker	Walker County Hospital District
Wharton	West Wharton County Hospital District

Source: Texas Department of State Health Services.

The Gulf Coast region has 62 for-profit hospitals, 32 nonprofit hospitals and 13 public hospitals, for a total of 107 (**Exhibit 42**). Houston accounts for 47 of these, including 28 for-profit hospitals, 16 nonprofits and three public hospitals — Ben Taub General Hospital, University of Texas M.D. Anderson Cancer Center and Harris County Psychiatric Center. The rest of the region's hospitals are spread among numerous cities and counties.⁵ Only one of the region's 13 counties, Waller County, lacks a hospital.

In 2008, the region's hospitals had a total of 20,503 staffed beds (19,465 acute-care beds and 1,038 psychiatric beds). Houston has the region's largest number of acute-care beds—12,260 beds for patients receiving short-term medical care at a hospital or other facility. The Methodist Hospital in Houston is the region's largest, with 1,352 beds. Memorial Hermann Hospital is next-largest, with 1,062 beds, followed by Ben Taub General Hospital with 975 acute-care beds. Galveston's University of Texas Medical Branch Hospital (UTMB) was the third-largest hospital in the region before Hurricane Ike struck in September 2008. As of October 2009, UTMB had 400 beds, down from about 680 beds before the storm.⁶

UTMB's Level 1 trauma center was downgraded to a Level 3 after Hurricane Ike, leaving the region with only two, Ben Taub and Memorial Hermann, both in Houston's Texas Medical Center. (A Level 1 center is specifically designed to handle patients with serious and complex injuries; at present, Texas has 15 of them.)⁷

The Gulf Coast region also has 11 hospital districts (**Exhibit 43**). Once approved by voters, a hospital district can levy property



and sales taxes for the support of health care and hospital services.⁸ Just three of the region's counties — Galveston, Fort Bend and Waller — do not have a hospital district.

Texas Medical Center

The Texas Medical Center comprises 48 nonprofit institutions including academic institutions, hospitals and support-services organizations located on 1,000 acres adjacent to downtown Houston (**Exhibit 44**). TMC is the world's largest medical center, with 72,600 employees, 5.1 million annual patient visits, 160,000 daily visitors and 29.6 million gross square feet of space for patient care, education and research in 2008.

TMC institutions are recognized world-wide for innovations including pioneering heart and vascular surgical procedures, and for establishing Texas' first air ambulance service. TMC's reputation attracts patients from around the world, with 14,600 international patient visits in 2008.⁹

About \$1 billion supported research at TMC in 2008. In September 2009, three TMC institutions — Baylor College of Medicine, University of Texas M.D. Anderson Cancer Center and UT Health Science Center at Houston — received \$100 million in research grants under the American Recovery and Reinvestment Act to pursue "high risk/high reward" projects.¹⁰

(text continued on Page 97)

Exhibit 44

Texas Medical Center Institutions

Patient Care Institutions

Baylor Clinic
Harris County Hospital District
Memorial Hermann-Texas Medical Center
Children's Memorial Hermann Hospital
Texas Children's Hospital
The Methodist Hospital
St. Luke's Episcopal Hospital
The Houston Hospice and Palliative Care Systems
Shriners Hospital for Children – Houston
The University of Texas M.D. Anderson Cancer Care
Michael E. DeBakey Veterans Affairs Medical Center in Houston
St. Dominic Village
The Institute for Rehabilitation and Research (TIRR)

Academic and Research Institutions

Baylor College of Medicine
Michael E. DeBakey High School for Health Professions



Exhibit 44 (cont.)

Texas Medical Center Institutions**Academic and Research Institutions**

Houston Academy of Medicine-Texas Medical Center Library

Houston Community College System, Health Science Programs

The Methodist Hospital

Prairie View A&M University, College of Nursing

Rice University

Texas A&M Health Science Center - Institute of Biosciences and Technology

Texas Heart Institute

Texas Southern University College of Pharmacy & Health Sciences

Texas Woman's University Institute of Health Sciences-Houston

University of Houston/ University of Houston College of Pharmacy

The University of Texas Health Science Center at Houston
 Dental Branch, Graduate School of Biomedical Sciences, Harris County Psychiatric
 Center, Medical School, School of Health Information Sciences, School of Nursing,
 School of Public Health, Brown Foundation Institute of Molecular Medicine for the
 Prevention of Human Diseases

The University of Texas M. D. Anderson Cancer Center

Other TMC Institutions

City of Houston Department of Health and Human Services

Gulf Coast Regional Blood Center

Harris County Medical Society

Harris County Public Health and Environmental Services

Houston Academy of Medicine

Houston Academy of Medicine - Texas Medical Center Library

The Institute for Spirituality and Health

Joseph A. Jachimczyk Forensic Center - Office of the Medical Examiner of Harris County

LifeGift

Ronald McDonald House of Houston, Inc.

John P. McGovern Museum of Health and Medical Science

Texas Medical Center (corporation)

Thermal Energy Corporation

Texas Medical Center Hospital Laundry Cooperative Association

YMCA Child Care Center at the Texas Medical Center

Source: Texas Medical Center.



TMC got its start after the trustees of the M.D. Anderson Foundation, created by wealthy Houstonian Monroe Dunaway Anderson, offered a grant, temporary facilities and land to attract a new University of Texas cancer research center to Houston in 1945. The center was named the University of Texas M.D. Anderson Cancer Center and became the first of many institutions to join TMC over the last 64 years. TMC has grown from 134 acres in 1945 to 1,000 acres in 2009.

Chartered as a nonprofit corporation in 1945, TMC has continued to acquire land for future growth. This land is offered to member institutions for a token \$1 per year.¹¹ Often called a “city within a city,” the TMC campus includes 26 miles of public and private streets and more than 48,000 parking spaces.¹² TMC’s area in 2007 was greater than the combined square footage of downtown buildings in San Antonio, El Paso and Fort Worth. As of October 2009, TMC’s 31 million square feet of space made it the 12th largest downtown business district in the U.S. — larger than downtown Los Angeles.¹³

TMC is governed by a policy council comprising the chief executive officers of each member institution that is responsible for campus-wide issues such as strategic and master planning. TMC institutions benefit from economies of scale generated by the use of common services such as thermal energy from steam and chilled water, a hospital laundry cooperative, conference center, library facilities, security services and a campus newspaper.¹⁴

TMC is driving a hospital construction boom in Houston. In November 2007, TMC announced plans to spend more than

\$7 billion on the construction of hospitals, clinics, research facilities, office space and infrastructure through 2014. Forty-six percent of the new construction will be for patient care space; 28 percent for education and office space; and 26 percent for research space. TMC facilities have plans to expand to 40 million gross square feet in 2014.¹⁵

Health care topped the list of Texas’ top construction projects by revenue in 2008 and 2009. TMC projects in Houston were listed among the 10 largest projects in both years. As of August 2009, 17 projects valued at \$3.3 billion are under way at TMC.¹⁶ These projects include hospitals, clinics, medical offices, research labs as well as upgrades to TMC roads and underground utilities. Four of TMC’s health institutions — Methodist Hospital System, Baylor College of Medicine, Texas Children’s Hospital and University of Texas M.D. Anderson Cancer Center — have major construction projects in progress.

Texas Children’s Hospital has two construction projects — a Maternity Center and a Neurological Research Institute—that are among the five largest construction projects breaking ground in Texas in 2008.¹⁷ A new, \$430 million maternity center at Texas Children’s Hospital is scheduled for completion in mid-2011 and will include clinic and office space.¹⁸ The Jan and Dan Duncan Neurological Research Institute at Texas Children’s, the first facility of its kind to use a multidisciplinary research approach bringing together diverse researchers to collaborate on children’s neurological diseases, will cost an estimated \$215 million and should open in 2010.¹⁹

Health care topped the list of Texas’ top construction projects by revenue in 2008 and 2009.



The Methodist Hospital System has two major projects under construction at the Texas Medical Center, a \$237 million Outpatient Center and a \$218 million Methodist Hospital Research Institute that will include laboratories, a surgical training facility and conference center. In the next two years, Methodist Hospital also plans to replace an older hospital at TMC with a new 1 million-square-foot inpatient tower.

Construction is also under way at the M.D. Anderson Cancer Center, which is adding a \$220 million addition atop the original 12-story Albert B. and Margaret M. Alkek Hospital to be completed in summer 2010. *U.S. News & World Report* once again ranked M.D. Anderson Cancer Center as number one in cancer care in its 2009-10 America's Best Hospitals rankings

The national economic recession has slowed construction projects at some TMC health institutions and put others on hold. Construction continues on the exterior of the new \$230 million Baylor College of Medicine Clinic and Hospital, but plans to finish the interior are on hold due to economic factors. St. Luke's Episcopal also has put a TMC project on hold and will pursue less capital-intensive projects at its community hospitals.²⁰

Even so, work continues on numerous infrastructure projects that will support TMC. In September 2009, the city of Houston, Harris County and TMC completed construction of the Richard E. Wainerdi Bridge, which connects TMC's two Level 1 trauma centers to Interstate Highway 610 and is less prone to flooding than a previous bridge.

Houston continues to make improvements to roads in and around TMC, and Harris

County plans to widen Brays Bayou, thus improving flood control in the area. A \$370 million, three-phase expansion of Thermal Energy Corp., which provides TMC with power, will double its generation capacity.²¹

Other Projects

To meet the medical needs of the region's rapidly growing population, several major hospital systems have construction projects under way or planned. In May 2008, the initial phase of construction began on the Texas Children's West Campus, a suburban pediatric hospital located in the greater Houston area that was the eighth-largest Texas construction project in 2009.²²

The Methodist Hospital System also has numerous ongoing expansions and construction projects worth more than \$1 billion, two in the Texas Medical Center and the rest in community hospitals located throughout greater Houston. The Memorial Hermann Healthcare System and St. Luke's Episcopal Health System also have several facility projects under way or recently completed.

In Galveston County, UTMB has \$1 billion in repairs and new construction planned or in progress. Construction of a new \$61 million UTMB outpatient specialty care and surgical center in League City is nearing completion.²³

Galveston County must spend from \$12 to \$15 million of its own funds before it can access \$150 million in new state funding the Texas Legislature has made available to rebuild UTMB. Some county officials support the creation of a countywide hospital district to raise the local share, while others favor raising the property tax rate.²⁴

In Galveston County, UTMB has \$1 billion in repairs and new construction planned or in progress.



UTMB: Texas' First Medical School

Galveston is home to Texas' first medical school. Founded in 1891, the University of Texas Medical Branch at Galveston (UTMB) has grown from one medical school with 23 students and one hospital to a major academic center with four academic schools, more than 40 centers and institutes, numerous hospitals and clinics and 2,460 students in 2009.

UTMB has educated more physicians than any other university in Texas. Its School of Medicine, School of Nursing, School of Health Professions and Graduate School of Biomedical Sciences have awarded more than 33,000 health professional and science degrees. UTMB is also known for its biomedical research and infectious disease programs. Seven of its medical school departments are ranked in the top 20 for National Institutes of Health (NIH) funding; the Obstetrics and Gynecology Department is ranked sixth nationally.

UTMB also has the distinction of being one of two National Biocontainment Laboratories in the U.S. In October 2003, the National Institute of Allergy and Infectious Diseases at NIH awarded UTMB funding to build the state-of-the-art Galveston National Laboratory to conduct research on emerging infectious diseases, including those that could be used in terrorist attacks.

UTMB is a major health care provider in the Galveston Bay area. In addition to John Sealy Hospital in Galveston, it has another 80 primary and specialty clinics scattered throughout the island and on the mainland, in cities including Angleton, Alvin, Dickinson, Friendswood, Texas City, Nassau Bay/Webster and League City. UTMB's AT&T Center for Telehealth Research and Policy allows health care providers to serve patients remotely; it is the world's largest center of its kind, with 66,000 patient encounters per year. Burn patients from around the state receive care at UTMB's Blocker Burn Unit, which has survival rates for individuals with major burns that are among the nation's highest.

UTMB has a significant economic impact on the Houston-Galveston region, accounting for \$500 million in direct and indirect business volume and a total economic impact of \$1 billion, according to a 2007 study.

Before Hurricane Ike, UTMB employed 12,588 and was the third-largest hospital in the Houston-Galveston area. After Hurricane Ike, the number of UTMB employees declined to 10,750. The hurricane also closed UTMB's highly rated emergency department, which reopened in August 2009 as a Level 3 Trauma Center instead of its former designation as a Level 1 Trauma Center. UTMB is working to restore the emergency center to Level 1 status in 2010. With a budget of \$1.5 billion in fiscal 2010, UTMB continues to play an important role in the region's economy.²⁵

Veterans' Health Care

Houston's Michael E. DeBakey Veterans Affairs Medical Center (MEDVAMC) provides health care services for veterans and active military personnel in the Gulf Coast region. Built in 1991 on 118 acres, MEDVAMC is a state-of-the-art facility consisting of 386 hospital beds, a 40-bed Spinal Cord Injury Center and a 120-bed transitional-care unit for long-term care. The main building features a computer-controlled transport system that delivers food, laundry and

various supplies throughout the building. It has four exterior sections and four atriums that contain patio gardens, wheelchair basketball courts and a rehabilitation pool.

Between fiscal 2000 and 2008, MEDVAMC saw significant growth in the number of veterans it serves annually, from 73,879 to 121,624 patients. MEDVAMC's inpatient admissions also increased, from 10,222 to 14,057, while outpatient visits within the region rose from 474,901 to 799,928. To help improve veterans' access to health care,



MEDVAMC has added two satellite clinic locations, one in Conroe and the other between Galveston and Texas City.²⁶

While MEDVAMC serves as the primary health care provider for more than 121,000 veterans and their dependents in the Gulf Coast region, veterans from around the country are referred to it for specialized diagnostic care, radiation therapy, surgery and medical treatments including cardiovascular surgery, gastrointestinal endoscopy, nuclear medicine, ophthalmology, and treatment of spinal cord injury and diseases.

MEDVAMC is also home to a Post Traumatic Stress Disorder Clinic, a rehabilitation center focusing on mild to moderate brain injuries, a Polytrauma Center or trauma center that serves patients with multiple injuries or disabilities, a Cardiac and General Surgery Program, a Liver Transplant Center, an Epilepsy Treatment Center and one of the Veteran Affairs' six Parkinson's Disease Research, Education, and Clinical Centers.²⁷

Psychiatric care for veterans and active military personnel in the region is administered through a coordinated effort led by the Baylor College of Medicine's Menninger Department of Psychiatry and Behavioral Sciences and including MEDVAMC, Ben Taub General Hospital, Menninger Clinic, Methodist Hospital, St. Luke's Episcopal Hospital and the Texas Children's Hospital. MEDVAMC is the largest partner in this effort, with about 1,000 inpatient admissions, 107,000 outpatient visits, 5,000 emergency visits, 600 inpatient consultations and 2,500 follow-up visits annually.

This coordinated effort provides ongoing care in both inpatient and outpatient settings

to veterans who have severe and persistent mental illness, including schizophrenia, manic-depressive illness (bipolar disorder), post-traumatic stress disorder (PTSD), geriatric psychiatry needs, substance abuse, sleep disorders, chronic pain and other related disorders. The program offers inpatient and outpatient evaluation and crisis stabilization services 24 hours a day year-round. After a veteran is stabilized, he or she is referred to a partner institution for outpatient follow ups or long-term care, depending on their individual needs.²⁸

MEDVAMC, in coordination with Baylor College of Medicine, also operates the nation's largest veteran affairs residency program, with more than 250 positions. Each academic year, nearly 2,000 medical students are trained through 144 affiliation agreements with institutions of higher education in 19 different states. Students from fields such as nursing, dietetics, social work, physical therapy, and a wide variety of medical specialties receive training at MEDVAMC each year. In all, MEDVAMC employs nearly 3,500 health care professionals annually.

MEDVAMC receives more than \$16 million annually for research from the federal government, which helps ensure veteran access to cutting-edge medical and health care technologies. In all, the center has 729 active research projects aimed at developing new techniques and products to improve disease prevention, diagnosis and treatment.

These efforts have led to many achievements, including a study that found angioplasty to be more cost-effective than bypass surgery; a new type of prosthetic hand

MEDVAMC employs nearly 3,500 health care professionals annually.



providing sensory feedback to the brain; research into preventing outbreaks of an increasingly antibiotic-resistant germ; animal and cell-culture tests that found that golden-seal root is an effective cholesterol-lowering agent; and an exploration of the depletion of B cells, a type of lymphocyte that makes antibodies that can be used as a potential therapy for autoimmune diseases.²⁹

Psychiatric Care

The region's psychiatric care is coordinated by a number of community mental health and mental retardation (MHMR) centers affiliated with the Texas Department of State Health Services. These community MHMR centers provide the usual entry point for mental health treatment in the state.

They provide a number of services that can be divided into two general categories: mental health assessment and referral and outpatient treatment and counseling. Each community MHMR center provides assessment and treatment services to both children and adults through interdisciplinary treatment teams that either refer clients to specialized service providers or develop treatment plans to serve their individual needs (**Exhibit 45**).³⁰

In addition, the region is served by two state-administered inpatient crisis stabilization centers and long-term care facilities housed at the Austin and Rusk state hospitals. The two inpatient public psychiatric state hospitals that serve the Gulf Coast region, Rusk State Hospital and Austin State Hospital, are located outside the region, to the northeast and west, respectively. Both provide crisis stabilization and long-term

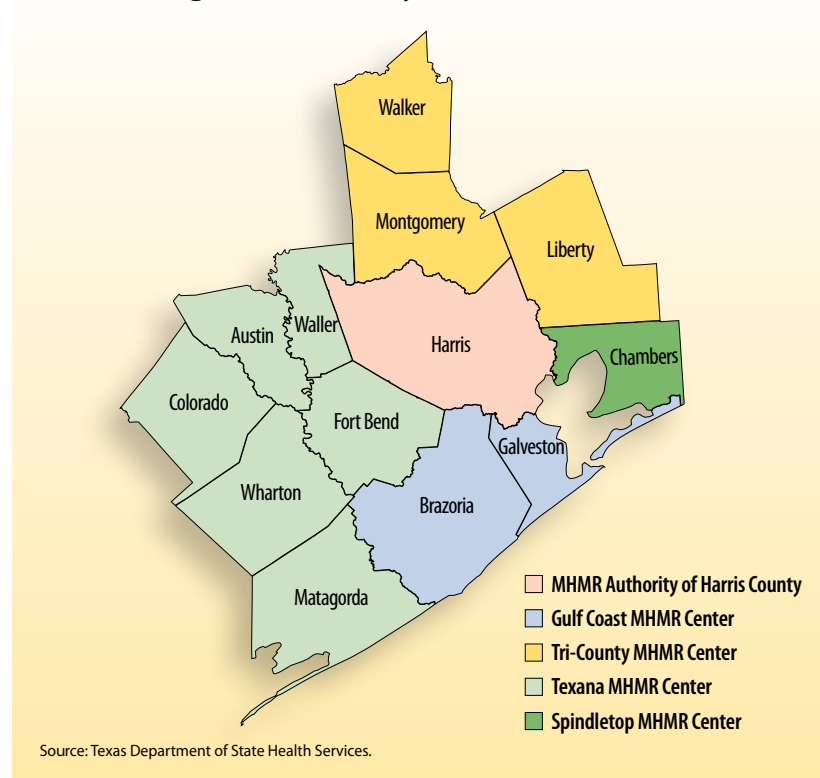
psychiatric care for adults; Austin State Hospital provides these services for children for all Gulf Coast counties in the region except Harris County.

Harris County children aged three to 17 years who need acute inpatient mental health care are served by the MHMR Authority of Harris County, which has a Psychiatric Emergency Services Unit that is staffed 24 hours a day with psychiatrists, registered nurses, clinical social workers, licensed professional counselors and psychiatric technicians.

Each child seen receives an individualized clinical service plan that can include medication administration; reinforcement of coping skills; close observation by clinical staff; family meetings; and the determination

Exhibit 45

Gulf Coast Region, Community MHMR Center Services Areas





of appropriate community supports such as day care, food or cash assistance. Of those served, on average 78 percent were referred to an outpatient provider or clinic without hospitalization, annually.

For those who do require hospitalization, the authority has a 16-bed Crisis Stabilization Unit for adults and children in crisis who need more intensive psychiatric treatment and observation. The average length of stay is three to five days, after which time clients are referred to other community providers.³¹

Harris County's Neuropsychiatric Center (NPC) is a crisis and emergency center that serves more than 10,000 adults, adolescents and children a year. Its goal is to evaluate persons with mental health emergencies quickly and accurately and to refer them to appropriate community mental health providers.

The majority of people seen by NPC are referred to public or private community mental health providers, although some are referred to NPC's Crisis Residential Unit (CRU), which serves chronically and seriously ill adults. Individuals may stay in the

CRU from three days to four weeks, with stays averaging 10 to 14 days. The CRU has 18 beds and usually serves as a provider "of last resort," since most of those it serves are indigent or uninsured.³²

The University of Texas Harris County Psychiatric Center (UTHCPC), part of the University of Texas Health Science Center at Houston, offers both inpatient and outpatient care for patients referred from the MHMR Authority of Harris County, as well as those with insurance who are referred by private physicians or other hospitals or care providers. UTHCPC averages more than 6,100 inpatient admissions and 14,000 outpatient visits each year. It is located in the Texas Medical Center and all attending physicians are also faculty members of the University of Texas Medical School at Houston.

UTHCPC provides short-term inpatient mental health services for all persons aged three and above. The average length of stay is 11 days for children and adolescents and nine days for adults. The center specializes in treating bipolar disorder, schizophrenia,

Cardiovascular Systems

The medical device company Cardiovascular Systems will open a manufacturing plant in Pearland and has leased a 46,000 square foot space that will support the production of catheters used to treat arterial disease. According to the CEO, the company considered a number of location proposals but settled on Pearland as a result of attractive state and local economic incentives. The firm received \$3.5 million in incentives from the city of Pearland (with the promise of another \$3.5 million if certain targets are met) and a \$600,000 grant from the Texas Enterprise Fund. Based on the firm's commitment to hire 100 workers and spend more than \$25 million on capital investments, the Governor's Office forecasts the creation of 925 jobs and an estimated \$280 million annual economic impact. Area officials anticipate the addition of the facility will strengthen the region's reputation as a centre for innovation and research.³³

Pearland is located in Brazoria County just minutes away from downtown Houston and the Texas Medical Center. The city boasts one of the fastest growing economies in Texas, and according to *Forbes* July 2007 magazine, is the 34th fastest growing suburb in the nation. Cardiovascular Systems revenue grew from \$22.2 million in 2008 to \$56.5 million in 2009 after the U.S. Food and Drug Administration granted clearance of their Diamondback 360° medical catheter system.³⁴



Exhibit 46

Gulf Coast Region, Large Private Psychiatric Facilities

Facility Name	Population Served	Higher Education Affiliation
Lyndon B. Johnson General Hospital	Children, Adolescents and Adults	UT Health Science Center at Houston
Memorial Hermann Hospital	Children, Adolescents and Adults	UT Health Science Center at Houston
UT Mental Sciences Institute	Children, Adolescents and Adults	UT Health Science Center at Houston
M. D. Anderson Cancer Center	Children, Adolescents and Adults	UT Health Science Center at Houston
St. Joseph Medical Center	Adults Only	Texas A&M University, Houston
Methodist Hospital General Psychiatry Unit	Adults Only	Baylor College of Medicine, Houston
Menninger Clinic	Adolescents and Adults	Baylor College of Medicine, Houston
West Oak Hospitals	Children, Adolescents and Adults	—
Cypress Creek Hospitals	Children, Adolescents and Adults	—

Note: Children ages 3 through 12, adolescents 13 through 18 and adults are over the age of 18.
Source: The University of Texas Medical School at Houston, Psychiatry and Behavioral Sciences.

depression, anxiety disorders, disruptive behavior disorders and attention deficit/hyperactivity. UTHCPC programs focus on stabilizing individuals in crisis in a safe, structured environment. Once clients are stabilized, they are referred to long-term community treatment facilities or to outpatient services provided either through UTHCPC or another outpatient program near the client's home.³⁵

The Gulf Coast region is also home to a number of large private psychiatric programs, many operated by or affiliated with the area's higher education institutions (**Exhibit 46**). These programs provide both inpatient and outpatient services and can treat a wide range of mental health disorders including bipolar disorder, schizophrenia, depression, anxiety disorders, disruptive behavior disorders, attention deficit/hyperactivity, personality disorders, obsessive-compulsive disorders, eating disorders, PTSD and addictive disorders.

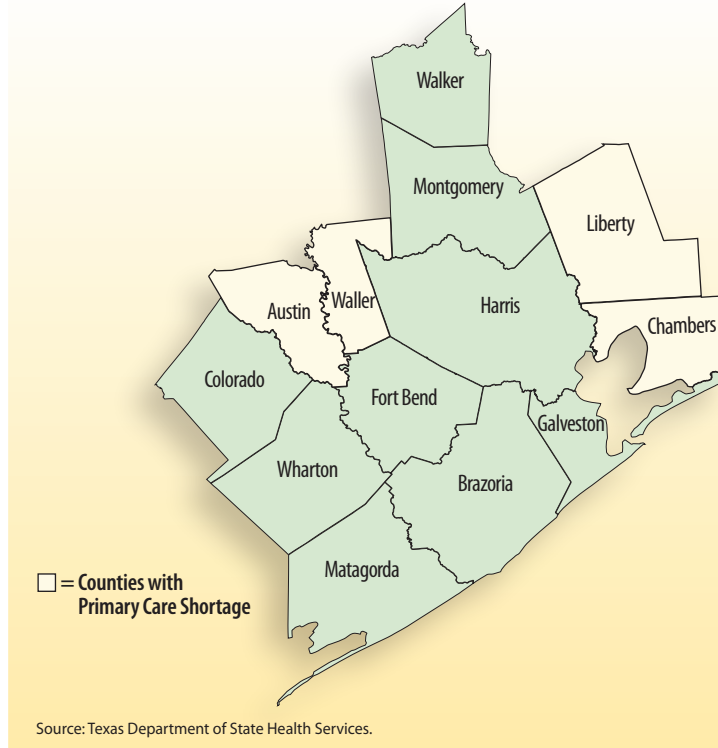
Professional Shortages and Rural Health Care

The U.S. Department of Health and Human Services designates Health Professional Shortage Areas — geographic areas or certain populations that have a significant shortage of available health care personnel. Eight of the 13 counties in the Gulf Coast region (Austin, Brazoria, Chambers, Liberty, Matagorda, Montgomery, Walker and Waller) have health professional shortages. Austin, Liberty and Waller lack primary-care physicians and mental health professionals, while Waller also needs dental services (**Exhibit 47**).³⁶

Chambers County has seven direct-care physicians for its 34,810 residents, or one for every 4,973 individuals. Austin County, with a population of 28,205, has 10 physicians, or one for every 2,821 residents. Waller County has the fewest physicians per capita among all Texas counties that have at least one doctor. With a population of 41,352 and just three direct-care physicians, the county has



Exhibit 47

2009 Primary Care Health Professional Shortage Areas

just one doctor for every 13,784 residents (**Exhibit 48**).³⁷

The Chambers County Public Hospital District provides a good example of how local, state and federal resources can be used to attract health care professionals to their area. The hospital district has used a number of programs offered by the Texas Department of Rural Affairs, including the Medical Underserved Community-State Matching Incentive Program (MUC-SMIP) to assist one health care provider and the Texas Health Service Corps Stipend Program (THSCP) to attract two doctors to this shortage area.³⁸

MUC-SMIP provides matching funds to primary-care physicians to help them cover the cost of establishing a practice in underserved communities. THSCP provides a state-funded stipend to resident physicians who commit to provide primary care to

Exhibit 48

Gulf Coast Region, Direct Patient Care Physicians by County, 2009

County	Population	Physicians	Ratio	Rank
Austin	28,205	10	2,821	173
Brazoria	310,491	235	1,321	99
Chambers	34,810	7	4,973	217
Colorado	22,074	29	761	41
Fort Bend	551,328	535	1,031	71
Galveston	289,203	313	924	58
Harris	4,016,367	7,857	511	22
Liberty	80,721	52	1,552	120
Matagorda	38,759	39	994	68
Montgomery	455,104	708	643	32
Walker	65,255	69	946	62
Waller	41,352	3	13,784	229
Wharton	43,560	59	738	38
Texas Total	24,873,773	39,374	632	-

Source: Texas Department of State Health Services.



medically underserved communities in Texas for a minimum of one year.³⁹

Chambers County also has had two health care professionals take advantage of the National Health Service Corps Loan Repayment Program, which provides \$50,000 to primary care medical, dental and mental health clinicians in exchange for two years of service in a county designated as a Health Professional Shortage Area. Health professionals may be eligible to receive additional support for extended service.⁴⁰

The Uninsured

Texas has the nation's highest share of uninsured residents. In 2008, 25.1 percent or 6.1 million Texans had no insurance at any time during the year, including 27.7 percent of all those under the age of 65 and 17.9 percent of children under 18.⁴¹

In 2006, the uninsured rate for those under 65 in the Gulf Coast region was 30.7 percent. Harris County had the highest rate, with an estimated 33.4 percent of residents uninsured; Galveston had the lowest rate, at 22.4 percent.⁴²

The Harris County Hospital District (HCHD) is the primary health care provider for the Houston area's uninsured. It comprises Ben Taub General Hospital and Lyndon B. Johnson General Hospital, Quentin Mease Community Hospital, 13 community health centers, one free-standing dental center, eight school-based clinics, 13 homeless shelter clinics and five mobile health units that are a part of an immunization and medical outreach program. In fiscal 2009, HCHD had 40,681 hospital admissions, 150,647 emergency visits, 891,475

outpatient visits, and delivered 9,722 babies.⁴³

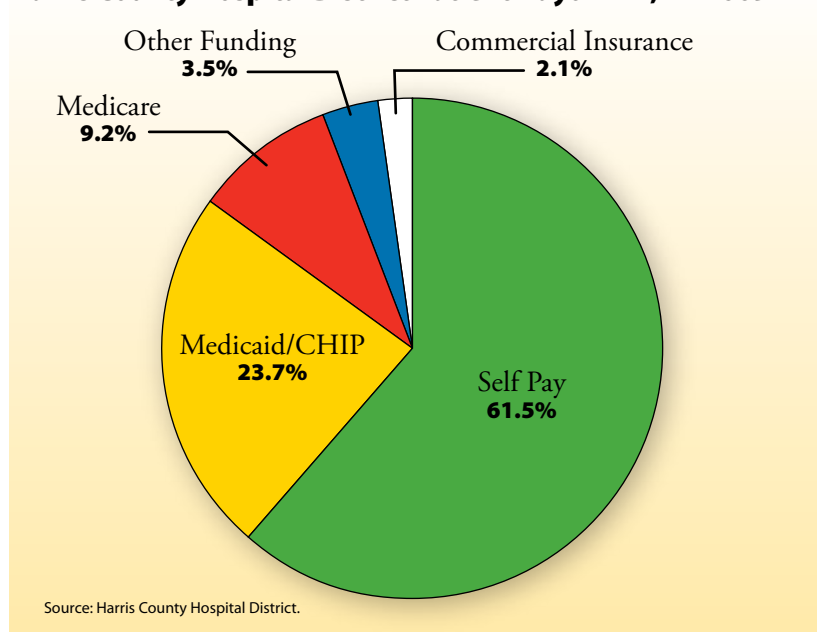
More than half of HCHD's total revenue of \$1 billion in fiscal 2009 came from property taxes (\$522.1 million), with the remaining from patient services (\$237.5 million), federal payments to states to reimburse hospitals that serve Medicaid patients and those with no means to pay for health care services (\$179.2 million) and other sources (\$62.8 million).

In fiscal 2009, HCHD provided \$928 million of charity care. The majority of its charges for patient services were for those without health insurance or other sources of funding (61.5 percent). Those with commercial health insurance accounted for 2.1 percent of charges (**Exhibit 49**).⁴⁴

Other Texas Medical Center hospitals also provide charity care. M.D. Anderson Cancer Center reported spending \$208.7 million on such care in fiscal 2008.⁴⁵ In 2008, the

Exhibit 49

Harris County Hospital District Patient-Payor Mix, FY 2009





To address the needs of the uninsured, the Harris County Health Alliance, United Healthcare and Community Health Choice have partnered to create the TexHealth Harris County 3-Share Plan. The plan will offer two affordable health benefit options to uninsured employees of small businesses.

Methodist Hospital System provided \$517 million in uncompensated charity care and community benefit activities.⁴⁶ The University of Texas Health Science Center at Houston delivered \$217.7 million in uncompensated care in 2008.⁴⁷

To address the needs of the uninsured, the Harris County Health Alliance, United Healthcare and Community Health Choice (nonprofit health maintenance organizations affiliated with HCHD) have partnered to create the TexHealth Harris County 3-Share Plan. The plan will offer two affordable health benefit options to uninsured employees of small businesses. Businesses that wish to participate must be located in Harris County, employ between two and 50 and

have not offered health insurance in the last 12 months. Eligible employees must work at least 30 hours a week. The cost of the plan will be shared by employers, employees and a subsidy fund with revenue from federal and state government sources, the city of Houston and Community Health Choice.⁴⁸

TexHealth Coalition is piloting a similar three-share program in Galveston County. The plan will contract with UTMB Health-Care Systems. The pilot program has similar eligibility requirements with slight differences in hours worked, income and business participation.⁴⁹

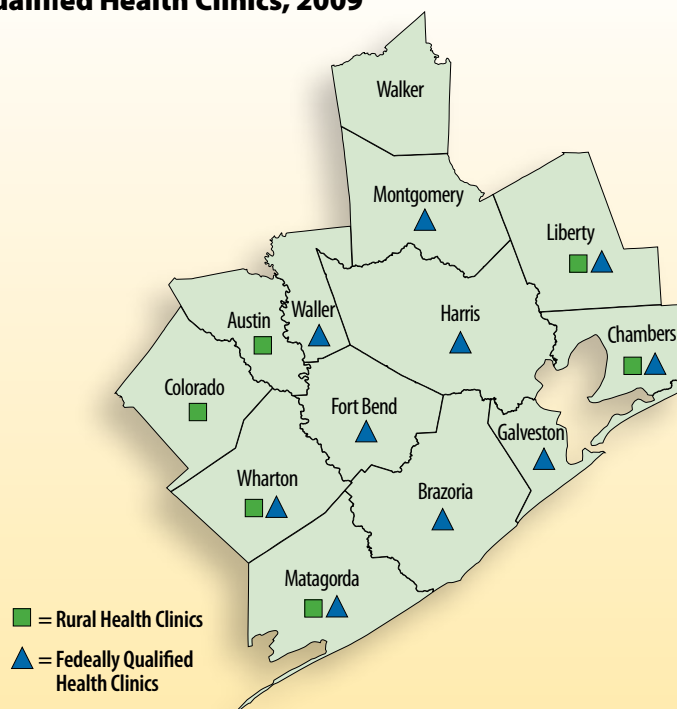
St. Vincent's House in Galveston provides free primary care to indigent, uninsured residents. Its clinic is a partnership with UTMB, which uses volunteer medical students to deliver services under the supervision of physicians. The clinic's focus is on the prevention, early detection and treatment of chronic diseases. Among other services, the clinic provides pediatric care, mammograms, HIV testing and prescription assistance.

In Matagorda and Wharton counties, the Matagorda-Wharton Health Access Consortium provides health and dental care to low-income, uninsured residents. Along with health and dental services, the consortium provides education on diabetes and other chronic diseases and case management for those seeking medical or social services.

Underserved communities often turn to Rural Health Clinics (RHCs) and Federally Qualified Health Clinics (FQHCs) to meet health care demands (**Exhibit 50**). These clinics provide access to primary care by physicians, nurse practitioners and physician assistants. Some clinics carry both designations.

Exhibit 50

Gulf Coast Region, Rural Health Clinics and Federally Qualified Health Clinics, 2009



Source: Texas Department of State Health Services.



All counties in the Gulf Coast region have county indigent health care programs (CIHCPs). These are required by state law to provide funding for basic health care services for indigent residents whose income is below 21 percent of the federal poverty level. CIHCPs often contract with FQHCs and RHCs to provide services.

CIHCPs use local and state funds to pay health care providers for services for eligible patients. To receive state funds, counties must spend more than 8 percent of their general revenue tax levy on qualified health care.⁵⁰

Diabetes and Obesity

The Gulf Coast region has rates of adult diabetes that mirror those of Texas as a whole. Adult diabetes rates have been rising at an alarming rate in Texas, from 7.7 percent in 2004 to 9.7 percent in 2008.⁵¹ In the Gulf Coast region, the prevalence of diabetes also rose, from 7.8 percent in 2004 to 10.1 percent in 2008.⁵² Hispanics, who make up 33.6 percent of the Gulf Coast region population, have higher rates of diabetes than blacks and whites, at 16.8 percent versus 14.7 percent and 7.5 percent, respectively.⁵³

The same period saw a corresponding increase in the prevalence of overweight or obesity in Texas adults and children.⁵⁴

Obesity is a major risk factor for diabetes.⁵⁵ The percentage of adult Texans that are overweight or obese rose from 62.9 percent in 2004 to 66.2 percent in 2008. In the Houston-Sugar Land-Baytown MSA, this share increased at an even faster pace, from 59.3 percent of the adult population in 2004 to 66 percent in 2008, with considerably higher rates for Hispanics and blacks — 76.5 percent and 73.1 percent, respectively.⁵⁶ A 2005 study noted that by the 1990s, three out of four Mexican-American adults were either overweight or obese.⁵⁷ Mexican-Americans are the largest Hispanic subgroup in the Houston-Sugar Land-Baytown MSA, accounting for 78.3 percent of all Hispanics in 2008.⁵⁸

Diabetes was the sixth most-common cause of death in Texas from 2002 through 2006.⁵⁹ The statewide diabetes mortality rate for that period was 29.8 deaths per 100,000 persons. In the Gulf Coast region, the diabetes mortality rate was 26.2 deaths per 100,000 overall, with considerably higher rates for Hispanics

All counties in the Gulf Coast region have county indigent health care programs (CIHCPs).

Moody Gardens

Galveston's Moody Gardens complex began as a therapy center. In 1983, the Moody Foundation leased the property from the city and built a horse barn and riding ring used for Hope Therapy, a "hippotherapy" program. Hippotherapy uses horseback riding as a physical therapy technique for people with movement problems caused by disease, stroke, birth defects or, in the case of the Moody program, head injuries.

Moody Gardens expanded over the next two decades to include additional therapy and educational programs as well as a man-made beach, a hotel and spa, a convention center, and glass pyramids containing a rain forest ecosystem, a large aquarium, an IMAX theater and a space museum. Most recently, Moody Gardens renovated Galveston's municipal golf course, opening it in June 2008.

The Moody Foundation operates Moody Gardens while the Galveston Parks Board owns the buildings. Revenue from the tourist attractions is used for the foundation's Hope Therapy, research and education programs.⁶⁰



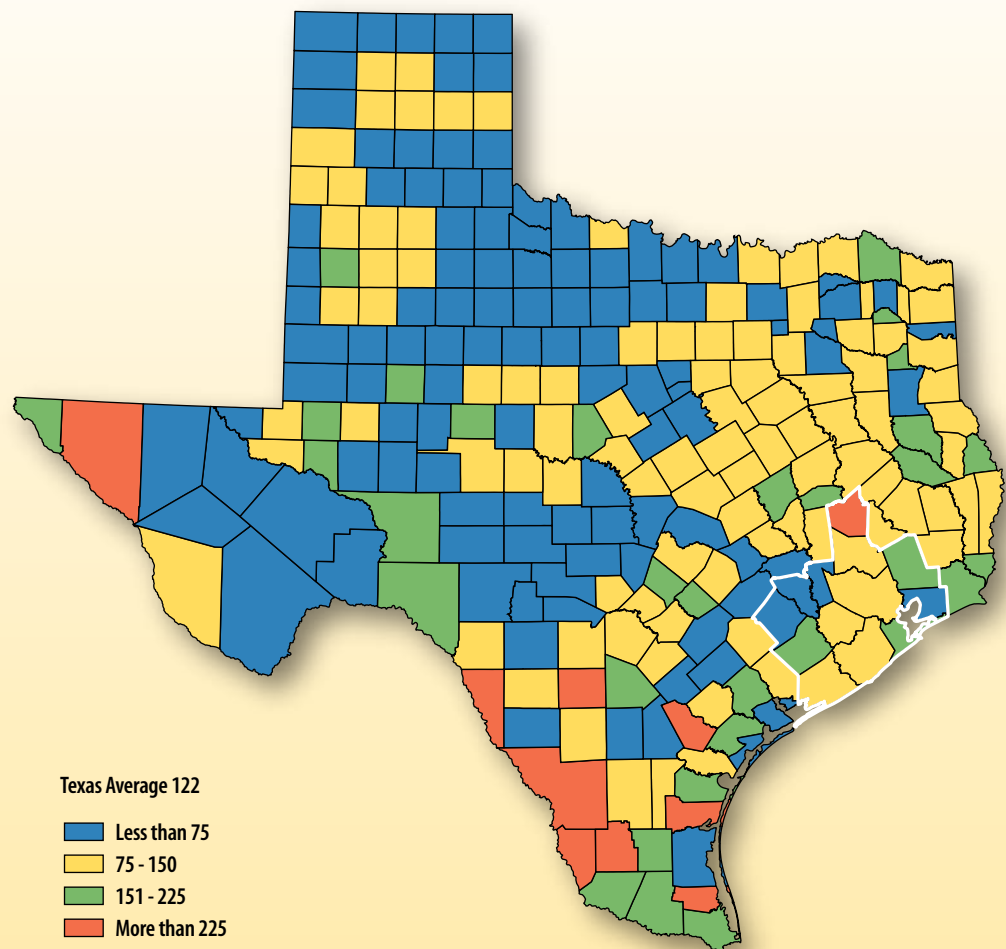
and blacks — 38.8 per 100,000 and 48 per 100,000, respectively.⁶¹ Mortality from diabetes is probably higher than indicated in statistics, since it is often listed as a contributing factor rather than a cause of death.⁶²

Untreated or poorly controlled diabetes can lead to long-term health complications including heart disease, stroke, vascular disease, blindness, kidney disease, nerve damage

and amputation. Texas hospital data indicate that five of the Gulf Coast region's 13 counties — Walker, Galveston, Wharton, Liberty and Harris counties — had higher-than-average admission rates per 100,000 residents for long-term diabetes complications in 2005 (**Exhibit 51**). In that year, the state average for such admissions was 122 per 100,000 residents.⁶³

Exhibit 51

**Admissions for Diabetes-Related Long-Term Complications
per 100,000 Population, by Texas County, 2005**



Source: Texas Department of State Health Services.



In 2008, the Gulf Coast region became home to one of only 17 National Institutes of Health (NIH) diabetes centers in the U.S., when Baylor College of Medicine (BCM) in Houston was designated a Diabetes and Endocrinology Research Center. This designation provides BCM with additional resources to enable it to become a national resource on diabetes research. Fifty-seven researchers in 10 different departments make up BCM's Diabetes and Endocrinology Research Center.⁶⁴

BCM collaborates with numerous entities on diabetes research and participates in programs that increase community awareness of the disease. As one of 16 Look AHEAD (Action for Health in Diabetes) clinical centers in the U.S., BCM researchers are conducting clinical trials to determine the long-term health effects of weight loss in individuals with Type 2 diabetes as well as the long-term impact of lifestyle counseling.

BCM's Children's Nutrition Research Center, one of six federally funded human nutrition research centers, is collaborating with Texas Children's Hospital on a study called HEALTHY that attempts to reduce childhood diabetes by promoting changes in school food programs, healthy behaviors and physical education programs. BCM also designed the Choosing Health and Sensible Exercise (CHASE) program, an eight-week course that teaches overweight children, adolescents and their families how improved nutrition and exercise can lower their risk of developing diabetes.⁶⁵ Both health departments and schools can use the CHASE program.

In the past 20 years, the prevalence of excessive weight among U.S. children has

doubled, making it a major public health concern, since obesity is a risk factor for many chronic diseases. And the problem is more severe in Texas.

Across the nation, 17 percent of children aged six to 11 were classified as obese in 2006, up from 6.5 percent in 1980, according to the U.S. Centers for Disease Control and Prevention (CDC).⁶⁶ The prevalence of childhood overweight or obesity is even higher in Texas. The School Physical Activity and Nutrition (SPAN) III survey reported that between 2004 and 2005 the rates of overweight or obesity for Texas school children were 42 percent of Texas fourth-graders, 39 percent of eighth-graders, and 36 percent of eleventh-graders. In 2007, the CDC's Youth Risk Behavior Surveillance System reported that 32 percent of Texas high school students were classified as overweight or obese.⁶⁷

The University of Texas Health Science Center at Houston has developed a variety of programs designed to prevent obesity and diabetes in children.⁶⁸ The University of Texas School of Public Health in Houston was one of four academic institutions that developed the award-winning Coordinated Approach to Child Health (CATCH) program, which teaches elementary school children healthy eating and physical activity behaviors. As of October 2009, 50 percent or more than 2,500 elementary schools in Texas and 7,000 schools nationwide had adopted the CATCH program. Several medical journals have reported on its effectiveness.⁶⁹

In August 2008, the University of Texas Health Science Center in Houston, the Mayor's Wellness Council, Houston Wellness Association and other community partners

In 2008, the Gulf Coast region became home to one of only 17 National Institutes of Health (NIH) diabetes centers in the U.S., when Baylor College of Medicine (BCM) in Houston was designated a Diabetes and Endocrinology Research Center.



launched a pilot project — Children and Neighbors Defeat Obesity (CAN DO Houston) — to fight obesity in two city neighborhoods. CAN DO Houston targets children 12 and under and their families and provides numerous activities including after-school programs that promote physical activity and healthy snacks, cooking classes for parents and students, grocery store tours, nutrition education, school gardens and fitness and nutrition carnivals.⁷⁰

Local hospitals and community health centers also provide educational and treatment programs to persons with diabetes. The American Diabetes Association has recognized the Houston Northwest Medical Center, Memorial Hermann Memorial City Medical Center and the Memorial Hermann Katy Hospital among others for Quality Self-Management Education.⁷¹ Diabetes self-management education teaches people to manage their diabetes and avoid related complications.

In Galveston County, UTMB's Stark Diabetes Center is known for its comprehensive approach to the disease, which includes

clinical care, education and diabetes research. Since its creation in 2001, the Stark Diabetes Center has made community outreach and education a priority.

The center holds community health fairs that provide diabetes screening and education throughout the region, and has formed partnerships with local health care workers to educate the public about lifestyle changes that can prevent and control diabetes. It also uses "telehealth" technology — use of telecommunication equipment and information technology — to disseminate information about diabetes care to health professionals and patients alike. It broadcasts a continuing medical education lecture series to health care providers throughout Texas, and also offers an American Diabetes Association-certified self-management training program to patients in surrounding counties via telehealth technology.⁷²

In 2009, the Texas Legislature appropriated \$6 million to the Stark Diabetes Center to expand its community-based diabetes education program, which focuses on the prevention and

Texas Fitness Now

In 2007, Texas Comptroller Susan Combs announced the new Texas Fitness Now program, aimed at middle school students attending schools where enrollment is at least 60 percent economically disadvantaged. Texas Fitness Now helps teach children the importance of physical activity and fitness.

To be eligible for a Texas Fitness Now grant, a school must ensure that students in grades 6, 7 and/or 8 participate in physical activity for either 30 minutes a day or 225 minutes per two-week period for the entire school year, plus several other physical fitness or administrative requirements.

Texas Fitness Now grants may be used to buy equipment, develop a physical education curriculum and instructional materials or to train teachers to help their students become fit. At least 25 percent of the funds are directed for nutrition education and activities.

Schools in the Houston Independent School District and the Galveston Independent School District were among those Gulf Coast school districts that received funding.⁷³



control of diabetes through lifestyle changes. According to UTMB, comprehensive diabetes prevention services provided through the Stark Center model of community-based care and patient education cost just \$21.50 per at-risk individual per year, compared to an average annual cost of \$12,000 to treat a person with diabetes. In August, the center announced it will partner with the Texas Diabetes Council to offer four regional community-based diabetes prevention programs in Texas.⁷⁴

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Education

Education and work force training are significant drivers of economic development. The educational attainments of Texas workers will largely determine the types of jobs and companies our state can recruit and the level of wages Texans will earn.

Public Education

About 1.2 million students — 25 percent of the state total — attend public elementary and secondary school in the Gulf Coast region, which is home to 79 public school districts with 1,431 campuses as well as 52 charter districts and their 104 campuses. The

region's student population has risen steadily in recent years, growing by 13.7 percent or 139,989 students from the 2002-03 to 2008-09 school years.

During the 2008-09 school year, the region's largest school districts by enrollment were Harris County's Houston ISD, with 199,524 students, and Cypress-Fairbanks ISD, with 100,505 students. The smallest districts were Harris County's Juan B. Galaviz Charter School, with just 64 students, and Jamie's House Charter School with 79 students.

Like the rest of the state, the Gulf Coast's public school population has seen its Hispanic population rise (**Exhibit 52**). The region's ethnic distribution is similar to the statewide student population distribution which is 3.6 percent Asian/Pacific Islander,



Pin Oak Middle School, Bellair (SW Houston)

PHOTO: Houston Independent School District



Exhibit 52

Gulf Coast Region, Ethnicity of Public School Students

Ethnicity	2002-03	2008-09
Asian/Pacific Islander	5.0%	5.8%
Black	20.3	20.0
Hispanic	37.7	43.7
Native American	0.2	0.2
White	36.8	30.3

Source: Texas Education Agency.

14.2 percent black, 47.9 percent Hispanic, 0.4 Native American and 34 percent white.¹

The Gulf Coast region also has seen an increase in its number of economically disadvantaged students. In 2002-03, 500,824 of its students, or 49 percent of total enrollment, were identified as economically disadvantaged. In 2008-09, this share had risen to 642,838 students or 55.3 percent, slightly less than the statewide average of 56.7 percent.

Exhibit 53

2008-2009 Accountability Ratings, Gulf Coast School Districts**School Districts**

Rating	Region	Statewide
Exemplary	11.5%	9.5%
Recognized	29.0	37.6
Academically Acceptable	45.0	46.1
Academically Unacceptable	11.5	5.9
Not Rated: Other	3.1	0.9

Note: "Not Rated: Other" includes campuses such as alternative education programs or early childhood education centers. These data include charter districts. Totals may not equal 100 percent due to rounding.
Source: Texas Education Agency.

Accountability

The region's districts compared similarly to the statewide averages in the 2008-09 district accountability ratings established by the Texas Education Agency (TEA). The region exceeded the statewide average for Exemplary ratings, but fared less favorably for districts deemed Recognized and Academically Acceptable (**Exhibit 53**).

In November 2009, TEA rated 15 of the region's 131 districts as Exemplary; 38 as Recognized; 59 as Academically Acceptable; and 15 as Academically Unacceptable. Four of the districts in the region were listed as "Not Rated: Other."

The Gulf Coast region exceeded statewide averages in the number of campuses rated Exemplary and Recognized. The percentage of campuses rated Academically Unacceptable was very similar to those of the state as a whole. (**Exhibit 54**).

Of the region's 1,535 campuses, including charter schools, 470 were rated Exemplary; 558 were rated Recognized; 343 were Academically Acceptable; 31 were Academically Unacceptable; and 133 were listed as "Not Rated: Other" in 2008-09.

Exhibit 54

2008-2009 Accountability Ratings, Gulf Coast School Campuses**School Campuses**

Rating	Region	Statewide
Exemplary	30.6%	25.9%
Recognized	36.4	35.4
Academically Acceptable	22.3	27.9
Academically Unacceptable	2.0	2.9
Not Rated: Other	8.7	7.9

Note: "Not Rated: Other" includes campuses such as alternative education programs or early childhood education centers. These data include charter districts.
Source: Texas Education Agency.



Thirteen of the region's 52 charter districts were rated Exemplary, while 12 were rated as Recognized, 14 as Academically Acceptable, 10 were Academically Unacceptable, and three were "Not Rated: Other." Twenty-six charter district campuses were rated Exemplary, 26 were Recognized, 34 were Academically Acceptable, 11 were Academically Unacceptable, and seven were "Not Rated: Other."

In 2008-09, among the region's districts that teach all grade levels, Friendswood ISD in Galveston County had the highest percentage of students passing all Texas Assessment of Knowledge and Skills (TAKS) tests, at 94 percent. Barbers Hill ISD in Chambers County had the next-largest share at 89 percent.

Regional leaders for college entrance exams included High Island ISD, in Galveston County, where 100 percent of graduating students took the exams; KIPP Charter, in Harris County, with 91 percent; and North Forest ISD, in Harris County, at 91 percent. Of the 131 Gulf Coast region districts for which data are available, 30 had

participation rates above the state average of 65 percent in 2007-08.

In that year, Friendswood ISD also had the highest percentage of test takers scoring at or above the criterion score TEA uses to measure college readiness, at 52.7 percent. Across the state, just 27.2 percent of students who took at least one of the tests scored at or above the criterion score.

In the 2007-08 school year (the most recent data available), the Gulf Coast region had a dropout rate of 4.3 percent compared to a statewide average of 3.2 percent.

Outcomes

In 2008, 79 percent of Gulf Coast residents above the age of 25 had a high school diploma, a General Educational Development (GED) certificate or some higher education, slightly above the statewide average of 75.7 percent.²

In the 2007-08 school year, 59,973 students graduated from the region's public high schools, representing about 23.8 percent of

(text continued on Page 121)

In 2008-09, among the region's districts that teach all grade levels, Friendswood ISD in Galveston County had the highest percentage of students passing all Texas Assessment of Knowledge and Skills (TAKS) tests, at 94 percent.

Performing Arts

Houston is one of only five U.S. cities with a permanent, professional resident symphony orchestra, opera, ballet and theater companies.

Its Theater District ranks behind only New York City in its number of seats in a downtown area, with 12,948 live performance seats primarily divided among four facilities. According to a report by the nonprofit advocacy group Americans for the Arts, nonprofit arts organizations and their audiences had an economic impact of \$626.3 million in Houston in 2005.³

Jones Hall has been the home of the Houston Symphony since 1966. The hall's \$7.4 million construction cost was paid by the Houston Endowment Inc., a foundation established by Jesse Holman Jones, a prominent Houston businessman and U.S. Secretary of Commerce from 1940 to 1945.

Nina Vance established Houston's Alley Theater in 1947, in a small dance studio seating 87 that was later relocated to a renovated factory with seating for 230. The construction of the present facility began in 1966 and was financed by a donation by the Houston Endowment, \$3.5 million in Ford Foundation grants and \$900,000 in locally donated funds.



Performing Arts (cont.)

Opened in 1987, the 437,500-square-foot Wortham Theater Center hosts the Houston Ballet and Houston Grand Opera. Private donations of \$66 million funded the center's construction, with Gus S. Wortham's foundation contributing \$20 million.

The new Hobby Center stages various musicals, plays and other theatrical productions. Completed in 2002, this \$102 million complex contains the 2,650-seat Sarofim Hall and the smaller, 500-seat Zilkha Hall.⁴

The Houston Symphony performs more than 170 concerts per year for an estimated 350,000 people. Begun in 1913, it became a full-time orchestra for musicians in 1971 and employs about 90 full-time musicians and 57 staff members. Its operating expenses for the orchestra totaled \$23 million in fiscal 2008. The orchestra's seasons include a classical music series, a pops series, family concerts and summer season performances at the Cynthia Woods Mitchell Pavilion.

The Houston Symphony orchestra has made many recordings since its first in 1949, and has been led by esteemed conductors including Ernst Hoffmann, Leopold Stokowski, Sir John Barbirolli, Andre Previn and Christoph Eschenbach. The orchestra is involved in the community through the Houston Symphony Community Connections Program, through which musicians volunteer to perform or act as music coaches for thousands of people in schools, retirement homes, hospitals, shelters and community centers. Funding for the orchestra is derived from ticket sales and corporate and individual donations.⁵

Founded in 1955, the Houston Grand Opera stages about six operas a year, performing each one five times. The Houston Opera is known for commissioning and producing new works and has performed 39 world and six U.S. premieres since 1973. In addition to performances in the Wortham Center, the opera company has toured Japan, Italy, Egypt, Scotland and France. Operating expenses for the opera are \$21.1 million annually and supports an orchestra, performers, chorus and large administrative staff.

The Houston Grand Opera Studio offers career development for exceptional young artists by providing them with intensive training and performance experience. Through classes, individual coaching and performances in stage productions, they can improve their craft and begin professional careers in opera or musical theater. The opera's "HGOco" program brings opera to community through teacher workshops, performances for children and abbreviated performances at local libraries, community centers and schools.⁶

The Houston Ballet Foundation and Houston Ballet Academy were founded in 1955, with the purpose of establishing a resident ballet company for the city as well as a school to train dancers. The professional company, created in 1969, is now the nation's fourth-largest, with 54 dancers. During its seven-month annual season, the Houston Ballet produces over 75 performances.

The Houston Ballet has one of the largest endowments of any dance company, at nearly \$50.7 million, and has an annual operating budget of \$18 million. The ballet recently began building the Center for Dance, a \$53 million, 115,000-square-foot building in downtown Houston that will contain nine dance studios, rehearsal space and administrative facilities. The center should be completed by spring 2011.

With 300 students between the ages of four and 60, the Houston Ballet's Ben Stevenson Academy trains dancers at all levels from beginners to professionals. The academy's faculty includes world-renowned teachers who have performed with the Houston Ballet and other prestigious companies. More than half of the company's current dancers came from the academy.⁷



the statewide total for that year. Houston ISD had the largest number of graduates with 7,976, while Jamie's Charter School in Harris County had only two. Alphonso Crutch's-Life Support Center had just one graduate.

About 81.3 percent of the region's graduates satisfied the course requirements for the Texas State Board of Education Recommended High School Program or Distinguished Achievement Program and 18.7 percent graduated under the Minimum plan, a less stringent graduation plan that requires both parental and school approval (**Exhibit 55**).

School Finance

In the 2007-08 school year (the most recent data available), the Gulf Coast region's total school spending per pupil, including debt service, averaged \$10,624, 3.6 percent less than the statewide average of \$11,024. Twenty-three Gulf Coast region districts spent more than 20 percent above the statewide average in that year. Another 88 districts, however, including the region's charters, spent less per pupil than the statewide average.

Excluding charter districts, which do not receive funding from local taxes, the region's lowest total tax rate in 2008 was that of Tidehaven ISD, at 97 cents per \$100 of property value. Katy ISD levied the highest rate at \$1.53. The statewide average was \$1.20 per \$100 of value; 55 districts in the region exceeded it.

The Gulf Coast region generated a substantially higher share of its school revenue from local taxes (44.7 percent) than the statewide average (39.6 percent). Stafford ISD received the largest portion of its school funding from local taxes (68.6 percent), while Splendora

Exhibit 55

Gulf Coast Region and Statewide, 2008 High School Graduates

Graduation Plan	Region	Statewide
Minimum H.S. Plan	81.3%	81.4%
Distinguished Achievement & Recommended H.S. Program	18.7%	18.6%

Source: Texas Education Agency.

ISD had the lowest share (13.5 percent). The region's share of revenue from other local sources, such as equity transfers and tuition, was similar to the state's, at 6 percent versus 6.1 percent. The Harmony School of Innovation in Harris County gained 62.5 percent of their revenue from these other local sources, for the region's highest share; North Forest ISD in Harris County received the lowest share for the region's non-charter schools, at 2.1 percent.

Splendora ISD had the lowest property wealth per pupil in 2008, at \$96,215, while Devers ISD led the region with \$2,615,068 per pupil. The regional average was \$337,731, or 7.1 percent less than the statewide average of \$363,600.

The Texas school finance system requires districts with relatively high property wealth per pupil to share it with less-wealthy districts through a process called "equity transfers." In 2008, 12 districts in the Gulf Coast region transferred roughly \$105.2 million. Deer Park ISD transferred the largest total amount (\$19.8 million), while Devers ISD had the highest per-pupil transfer (\$31,050).

Among the non-charter districts, Boling ISD received the largest share of its revenue from the state in 2008, at 69.8 percent.

About 81.3 percent of the region's graduates satisfied the course requirements for the Texas State Board of Education Recommended High School Program or Distinguished Achievement Program.



Matagorda ISD received the smallest state share, at 17.2 percent. The regional average for 2007-08 was 41.4 percent, lower than the statewide average of 44.8 percent. The region derived 7.8 percent of its school funding from federal aid, a slightly smaller share than the statewide average of 9.5 percent.⁸

Teachers

In examining teacher salaries across the region, it should be noted that average salaries vary with the length of teacher tenure as well as wage levels. District A, for instance, may have a higher average salary than District B because it has a higher percentage of experienced teachers, even though its wage levels for various years of experience are lower than District B's.

The average Gulf Coast region teacher salary in 2007-08 was \$2,391 above the statewide average of \$46,179. Devers ISD had the highest average salary at \$57,023.

Average salaries in the region rose by 15.9 percent from 2002-03 to 2007-08, slightly more than the statewide average of 15.2 percent over the same period. For charter schools, the Two Dimensions Preparatory Academy had the highest increase for this period at 44.9 percent. Devers ISD had the highest increase for non-charter schools at 33.5 percent.

The region's teacher salaries accounted for more than 30.8 percent of total district expenditures from all funds in 2007-08, slightly higher than the statewide average of 30.1 percent. KIPP Southeast Houston devoted the highest share of total spending to teacher salaries, at 72.8 percent, while East Bernard ISD in Wharton County led the non-charter schools 43.6 percent. Sixty-three of the region's districts devoted a smaller share of expenditures to teacher salaries than the statewide average.

(text continued on Page 124)

The region's teacher salaries accounted for more than 30.8 percent of total district expenditures from all funds in 2007-08, slightly higher than the statewide average of 30.1 percent.

Houston Museum District

Houston's Museum District includes institutions devoted to history, art, nature and science and has evolved to symbolize Houston's status as a cultural center.

Houston's museums are a major tourist attraction. The district began in 1997 with 11 original member institutions. Since then, the district has grown to attract more than 6.6 million visitors per year, a record exceeding attendance for Houston's three major sports teams combined.

All but the Czech Center Museum offer free hours and 10 are always free. An annual Museum District Day grants free general admission at all district museums to raise awareness about their activities and programs. The 2009 Museum District Day attracted more than 66,000 visitors.

Connected by four METRORail stops, the district is centrally located with access to many shopping and dining establishments. It is near the Houston Zoo and Miller Outdoor Theatre and is adjacent to Rice University.⁹ The following table lists a description of the district's 18 museums.



Houston Museum of Natural Science – Paleontology Hall

PHOTO: Greater Houston Convention and Visitors Bureau



Houston Museum District (cont.)

Museums of the Houston Museum District

Museum	Description
Buffalo Soldier National Museum	The museum honors African-Americans that served in every American war.
Byzantine Fresco Chapel Museum	This Dominique de Menil project houses restored Byzantine frescoes rescued from thieves in Turkish-occupied Cyprus during the 1980s.
Children's Museum of Houston	Rated one the best children's museums in the U.S., the museum offers 14 multidisciplinary and bilingual exhibits, a 166-seat auditorium, and educational services on parenting and early childhood education.
Contemporary Arts Museum Houston	The museum prides itself on fresh exhibits and new works of art. The museum's educational opportunities provide another contemporary art outlet, with a forum for critical, scholarly, and public discourse.
Czech Center Museum Houston	The museum promotes and preserves Czech/Slovak culture and heritage through exhibits, concerts, and other educational opportunities.
Holocaust Museum Houston	The museum educates the public about the Jewish Holocaust and creates awareness about the dangers of hatred, prejudice and apathy.
Houston Center for Contemporary Craft	The center provides a venue for local and national artists, with an emphasis on art made of fiber, metal, glass, clay and wood.
Houston Center for Photography	The center promotes photography and its evolving role in contemporary culture, while also encouraging artists through exhibitions and dialogue.
Houston Museum of Natural Science	Founded in 1909, the museum preserves and advances general knowledge of natural science with exhibits on astronomy, space science, Native Americans, paleontology, energy, chemistry, gems and minerals, seashells, and Texas wildlife.
Houston Zoo, Inc.	With more than 1.7 million annual visitors, the Houston Zoo, located in Hermann Park, is home to over 4,500 animals from all over the world.
The John C. Freeman Weather Museum	Permanent exhibits include a weather broadcasting studio, a Climates of the World room, a 3-D digital weather sphere that includes satellite films of past hurricanes, and a tornado chamber.
The Health Museum	The Health Museum is an interactive science learning center that encourages healthier lifestyles, fitness, and physical and mental health.
The Jung Center of Houston	The center offers classes in psychology, philosophy, the humanities, religion, and the expressive arts. The center's library contains the most complete collection of books on Jungian subjects in the Southwest.
Lawndale Art Center	Close to 500 artists annually showcase exhibits on contemporary works from all media in the center's four galleries.
The Menil Collection	Considered one of the most important private collections of the 20th century, The Menil Collection houses approximately 15,000 paintings, sculptures, prints, drawings, photographs and rare books.
Museum of Fine Arts Houston	One of the largest museums in the U.S., The Museum of Fine Arts Houston consists of two major buildings, two art schools and 18 acres of public gardens.
Rice University Art Gallery	This gallery is the only U.S. university museum dedicated to commissioning site-specific installation art.
The Rothko Chapel	Known as a place where religion, art and architecture meet, the chapel is a modern work and one of the last projects of John and Dominique de Menil.

Source: Houston Museum District.



In fall 2008, 243,553 students enrolled in the Gulf Coast region's public and private universities, colleges and health-related institutions.

In 2007-08, the Gulf Coast region had a slightly higher average number of students per teacher than the state as a whole, at 15 versus 14.4. Among the region's charter schools, the Excel Academy in Harris County had the lowest number of students per teacher, at 8.2. For non-charter schools, High Island ISD had the lowest ratio, at 7.6 students per teacher.¹⁰

Higher Education

The Gulf Coast region has 25 institutions of higher education including five health-related centers. Sixteen of these are in Harris County. Nine of the region's 13 counties have higher education campuses or facilities (Exhibits 56 and 57).¹¹

Enrollment

In fall 2008, 243,553 students enrolled in the Gulf Coast region's public and private universities, colleges and health-related institutions. Enrollment in four-year universities and colleges accounted for 42.2 percent of the total, with another 54.6 percent enrolled in community colleges. The remaining 3.2 percent, or 7,791 students, enrolled in the region's health-related institutions.

The three University of Houston (UH) campuses in Harris County had 56,045 students enrolled in fall 2008. With an enrollment of 16,612, Sam Houston State University (SHSU) had the region's second-largest

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Exhibit 56

Gulf Coast Region, Higher Education Campuses

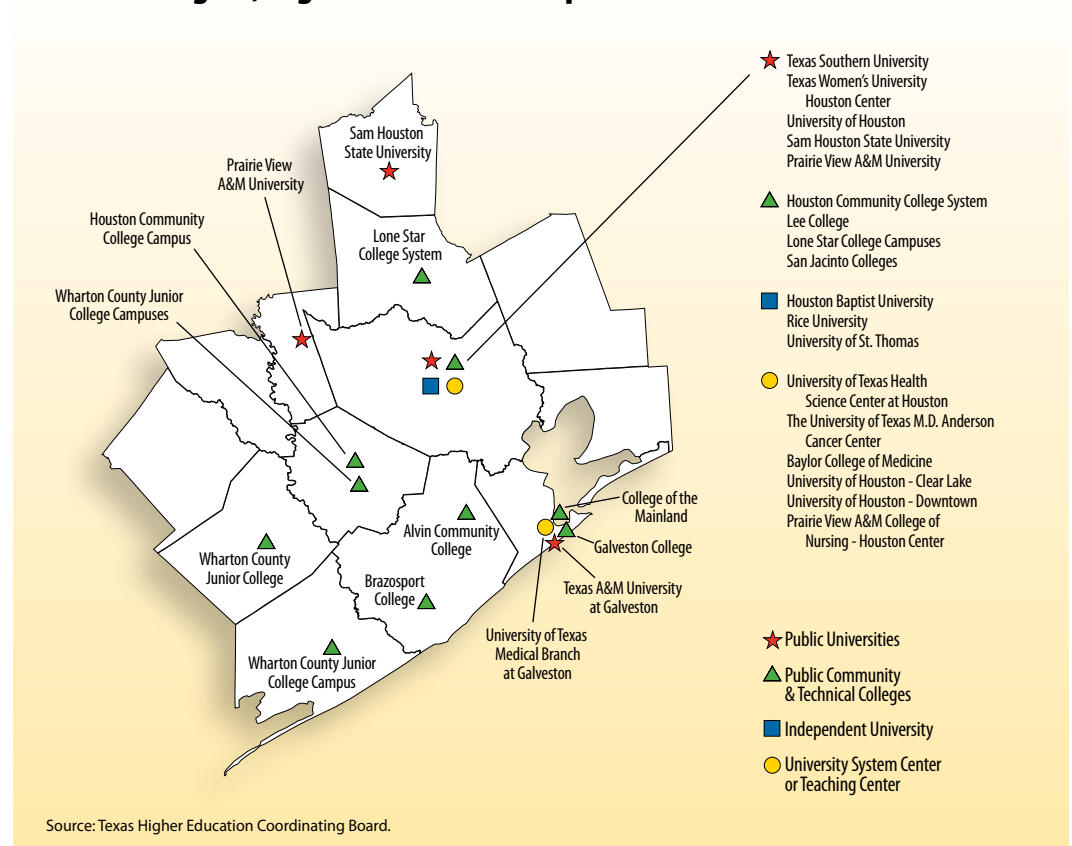




Exhibit 57

Gulf Coast Region, Higher Education Campuses

Institution	City	County
Alvin Community Colleges		
Alvin Community College	Alvin	Brazoria
Alvin Community College – Pearland Center	Pearland	Brazoria
Brazosport College	Lake Jackson	Brazoria
College of the Mainland	Texas City	Galveston
Galveston College	Galveston	Galveston
Texas A&M University at Galveston	Galveston	Galveston
Houston Community College System	Houston	Harris
Houston CCS – Central College		
Houston CCS – Northeast College		
Houston CCS – Northwest College		
Houston CCS – Southeast College		
Houston CCS – Southwest College		
Houston CCS – Southwest College – Stafford	Stafford	Fort Bend
Lee College	Baytown	Harris
Lee College – Crosby	Crosby	Harris
Lone Star College System		
Lone Star College – Cy-Fair	Houston	Harris
Lone Star College – North Harris	Houston	Harris
Lone Star College – Willow Chase Center	The Woodlands	Harris
Lone Star College – Carver Center	The Woodlands	Harris
Lone Star College – Fairbanks Center	The Woodlands	Harris
Lone Star College – Tomball	Tomball	Harris
Lone Star College – Conroe Center	Conroe	Montgomery
Lone Star College – Greenspoint Center	Houston	Harris
Lone Star College – Kingwood	Humble	Montgomery
Lone Star College – Montgomery	Conroe	Montgomery
Lone Star College – University Center	The Woodlands	Montgomery
San Jacinto Colleges		
San Jacinto CD – Central	Pasadena	Harris
San Jacinto CD – Central (La Porte)	Pasadena	Harris
San Jacinto CD – North	Houston	Harris
San Jacinto CD – South	Houston	Harris
The University of Texas Medical Branch at Galveston	Galveston	Galveston
The University of Texas Health Science Center at Houston	Houston	Harris



Exhibit 57 (cont.)

Gulf Coast Region, Higher Education Campuses

Institution	City	County
The University of Texas M.D. Anderson Cancer Center	Houston	Harris
Baylor College of Medicine	Houston	Harris
Houston Baptist University	Houston	Harris
Rice University	Houston	Harris
University of St. Thomas	Houston	Harris
Texas Southern University	Houston	Harris
Texas Woman's University Houston Center	Houston	Harris
University of Houston	Houston	Harris
University of Houston – Clear Lake	Houston	Harris
University of Houston – Downtown	Houston	Harris
Sam Houston State University	Huntsville	Walker
Prairie View A&M University	Prairie View	Waller
Prairie View A&M College of Nursing – Houston Center	Houston	Harris
Wharton County Junior Colleges		
Wharton County Junior College	Wharton	Wharton
Wharton County Junior College – CentraPlex Campus	Sugar Land	Fort Bend
Wharton County Junior College – Bay City Campus	Bay City	Matagorda
Wharton County Junior College – Fort Bend Technical Center	Richmond	Fort Bend

Source: Texas Higher Education Coordinating Board.

university enrollment. UH's combined enrollment has risen by 4.1 percent since fall 2003; enrollment at SHSU rose by 23.8 percent over the same period. SHSU and UH's Downtown campus both exceeded statewide public university enrollment growth of 7.7 percent.

The region's enrollment in two-year higher educational programs rose from 116,027 in 2003 to 133,003 in 2008, a 14.6 percent increase. During this period, enrollment rose at all public two-year institutions in the Gulf Coast region except for College of the

Mainland, Galveston College and Lee College. With both a rising population and the addition of new campuses to accommodate this growth, the Lone Star College System experienced the largest numerical and percentage growth, increasing enrollment by 10,128 additional students or 30 percent between 2003 and 2008.

In all, however, the region's pace of enrollment growth lagged somewhat behind the statewide rate of 10.6 percent, rising by 9.4 percent (**Exhibit 58**).¹²

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Exhibit 58

Gulf Coast Region, Fall Headcount Enrollment

Four-Year Universities	Headcount Enrollment (Fall 2003)	Headcount Enrollment (Fall 2008)	Enrollment Change	Percent Change
Texas A&M University at Galveston	1,620	1,612	-8	-0.5%
Texas Southern University	10,888	9,102	-1,786	-16.4
University of Houston	35,066	36,104	1,038	3.0
University of Houston-Clear Lake	7,776	7,658	-118	-1.5
University of Houston-Downtown	10,974	12,283	1,309	11.9
Sam Houston State University	13,417	16,612	3,195	23.8
Prairie View A&M University	7,808	8,203	395	5.1
Regional Total – Four-year Universities	87,549	91,574	4,025	4.6%
Statewide Total – Four-year Universities	472,818	509,136	36,318	7.7%

Public Colleges	Headcount Enrollment (Fall 2003)	Headcount Enrollment (Fall 2008)	Enrollment Change	Percent Change
Alvin Community Colleges	4,049	4,348	299	7.4%
Brazosport College	3,679	3,887	208	5.7
College of the Mainland	3,919	3,561	-358	-9.1
Galveston College	2,240	2,229	-11	-0.5
Houston Community Colleges	33,631	38,529	4,898	14.6
Lee Colleges	6,233	5,841	-392	-6.3
Lone Star Colleges	33,749	43,877	10,128	30.0
San Jacinto Colleges	22,621	24,616	1,995	8.8
Wharton County Junior Colleges	5,906	6,115	209	3.5
Regional Total – Two-year Public Colleges	116,027	133,003	16,976	14.6%
Statewide Total – Two-year Public Colleges	518,597	597,146	78,549	15.1%

Private Institutions	Headcount Enrollment (Fall 2003)	Headcount Enrollment (Fall 2008)	Enrollment Change	Percent Change
Houston Baptist University	2,338	2,564	226	9.7%
Rice University	4,959	5,456	497	10.0
University of St. Thomas	4,826	3,165	-1,661	-34.4
Regional Total – Private Institutions	12,123	11,185	-938	-7.7%
Statewide Total – Private Institutions	114,148	115,048	900	0.8%



Exhibit 58 (cont.)

Gulf Coast Region, Fall Headcount Enrollment

Health-Related Institutions	Headcount Enrollment (Fall 2003)	Headcount Enrollment (Fall 2008)	Enrollment Change	Percent Change
The University of Texas Medical Branch at Galveston	2,059	2,338	279	13.6%
The University of Texas Health Science Center at Houston	3,405	3,865	460	13.5
The University of Texas M.D. Anderson Cancer Center	75	203	128	170.7
Baylor College of Medicine	1,287	1,385	98	7.6
Regional Total – Health-Related Institutions	6,826	7,791	965	14.1%
Statewide Total – Health-Related Institutions*	14,243	17,692	3,449	24.2%

	Headcount Enrollment (Fall 2003)	Headcount Enrollment (Fall 2008)	Enrollment Change	Percent Change
Regional Total 2-Year Institutions	116,027	133,003	16,976	14.6%
Regional Total 4-Year and Health-Related Institutions	106,498	110,550	4,052	3.8%
Regional Total Higher Education	222,525	243,553	21,028	9.4%

* Public institutions only.

Note: Regional data do not include enrollment for branch campuses located in the Gulf Coast region that are part of the main campus located in another region, since they are not reported separately to the Texas Higher Education Coordinating Board.

Source: Texas Higher Education Coordinating Board.

Accessibility

The University of Houston - Downtown and Texas Southern University accepted 99.7 and 99.1 percent of their first-time undergraduate applicants, respectively, for the fall 2008 semester, well above the statewide average acceptance rate of 74.4 percent. For both institutions, however, only about 3 percent of those accepted were in the top 10 percent of their high school graduating class.

By contrast, about 16 percent of the applicants accepted at the University of Houston's main campus were accepted because they

were in the top 10 percent of their high school graduating classes, and statewide about 23.7 percent of accepted applicants took advantage of the 10 percent rule. The University of Houston's main campus acceptance rate was 78.7 percent.¹³

Outcomes

Because some degrees require more than four years of study, and because some students may need more time to graduate, the Texas Higher Education Coordinating Board (THECB) compares four-year and



Lone Star Flight Museum/Texas Aviation Hall of Fame

The Lone Star Flight Museum (LSFM) began as a private collection of historic aircraft. In May 1986, a nonprofit museum was created after much interest from the public. In 1990, the museum moved to its current location at the Scholes International Airport on Galveston Island.

Today, the LSFM features 27 vintage aircraft, some of them the last surviving models of their types. LSFM offers visitors flights in several World War II models, and flies its vintage planes at many air shows each year.

Besides the airplanes, the museum maintains the Fondren Center for Aviation Studies and Jesse H. Jones Research Center Library. Opened in 1998, the library houses 10,000 volumes of aviation-related books and technical manuals, manuscripts, historic photographs, artwork, fictional movies and documentaries, oral histories and other artifacts.¹⁴

In 1995, the Texas Legislature designated the LSFM as the Texas Aviation Hall of Fame (TAHOF). The museum raised the money to build the TAHOF Education Center, completed in November 1999, to honor each inductee's contributions to aviation with educational displays and memorabilia. Some of the inductees include President George H.W. Bush, Senator Lloyd Bentsen, Fleet Admiral Chester Nimitz, Astronaut Alan Bean, Bessie Coleman, Herb Kelleher, Gene Roddenberry and Howard Hughes.¹⁵

When Hurricane Ike hit Galveston on September 13, 2008, ten of the historic planes, including the B-17 and B-25 bombers, a P-47 Thunderbolt, an F4U Corsair and Grumman Hellcat and Bearcat fighters, were relocated during the storm and saved. Eighteen other restored aircraft that remained behind sustained damage from six feet of saltwater. The storm flooded a Hawker Hurricane aircraft, PBY Catalina, a Spitfire, a TBM Avenger and a Beechcraft AT-11 Kansan bombing and navigation trainer. The museum's World War II-era military and civilian vehicles were also submerged.

The Texas Aviation Hall of Fame was wiped out by the hurricane as the metal sides of the building peeled away. All of the displays and memorabilia about Texas aviators and business pioneers were damaged. Fewer than 10 percent of these items could be salvaged. The gift shop and the aircraft maintenance shop were demolished as well. The library, located on the second floor of the museum, was not damaged by the storm.

Despite the overwhelming damage and a lack of flood insurance, volunteers helped reopen the museum on January 31, 2009. To help protect the priceless aircraft and other artifacts, the facility may move to the Lone Star Executive Airport in Montgomery County or Ellington Field in Houston. Before the hurricane, the museum attracted 65,000 visitors a year. In 2009, they had about 38,000 visitors.¹⁶

six-year graduation rates to measure university outcomes. Graduation rates improved significantly between fiscal 2000 and fiscal 2007 at most of the region's universities (**Exhibit 59**). (The University of Houston - Clear Lake is an upper-division-only institution, and so has no first-time entering undergraduates.)

Because many community college students go on to a university to obtain a four-year degree, THECB also compares three-year

and six-year graduation rates to measure community college outcomes.

The Houston Community Colleges' three- and six-year graduation rates from fiscal 2000 to fiscal 2007 rose, by 4.9 percent and 8.3 percent, respectively. Four of the region's two-year institutions exceeded the statewide averages for 3- and 6-year graduation rates in 2000 and 2007 (**Exhibit 60**).

From fiscal 2003 to 2008, the University of Houston-Downtown's number of degrees



Exhibit 59

Gulf Coast Region Public Universities, Four- and Six-Year Graduation Rates (First-Time, Full-Time, Degree-Seeking Students)

Institution	Fiscal 2000 4-year	Fiscal 2000 6-year	Fiscal 2007 4-year	Fiscal 2007 6-year
Prairie View A&M University	11.7%	29.3%	11.4%	41.1%
Sam Houston State University	14.3	43.9	24.4	50.6
Texas A&M University at Galveston	19.9	59.7	21.4	61.7
Texas Southern University	8.4	14.4	2.6	12.7
University of Houston	11.9	44.6	13.7	49.7
University of Houston-Clear Lake	N/A	N/A	N/A	N/A
University of Houston-Downtown	2.8	17.8	1.9	20.9
Statewide Average	19.9%	49.6%	25.3%	56.3%

Source: Texas Higher Education Coordinating Board.

Exhibit 60

Gulf Coast Region Community Colleges, Three- and Six-Year Graduation Rates (First-Time, Full-Time, Credential-Seeking Students)

Institution	Fiscal 2000 3-year	Fiscal 2000 6-year	Fiscal 2007 3-year	Fiscal 2007 6-year
Alvin Community College	13.8%	35.5%	13.7%	36.9%
Brazosport College	16.3	36.5	14.6	34.1
College of the Mainland	12.8	23.1	7.8	24.9
Galveston College	8.9	21.4	14.1	22.0
Lee College	16.4	29.9	15.3	60.6
Wharton County Junior College	14.1	35.4	16.9	37.8
Houston Community College System	5.1	16.8	10.0	25.1
Lone Star College System	4.7	24.1	7.3	28.5
San Jacinto College District	11.1	29.3	13.1	29.3
Statewide Average	10.8%	25.7%	11.1%	30.8%

Source: Texas Higher Education Coordinating Board.

awarded rose by 44.8 percent, to 2,095, while the University of Houston main campus, with a much larger student body, increased its number of degrees awarded by 11.8 percent. Five of the Gulf Coast region's

seven public universities exceeded the statewide average increase in degrees awarded of 23.4 percent (**Exhibit 61**).

Over the same period, the number of degrees and certificates awarded by all Texas



community colleges rose by 19.1 percent. In the Gulf Coast region, the Lone Star Colleges increased their number of degrees and certificates awarded by 683.8 percent. Houston Community Colleges saw their

enrollments rise by 14.6 percent, but experienced a 499 percent jump in degrees and certificates awarded from fiscal 2003 to 2008 (**Exhibit 62**).¹⁷

(text continued on Page 133)

Prairie View A&M University

Prairie View A&M University is the first state-supported college for African Americans and the second-oldest public institution of higher education in Texas.

On August 14, 1876, the federal government and Texas Legislature created the school to educate young freed slaves in the agricultural and vocational arts. The school's original name was the Alta Vista Agricultural and Mechanical College of Texas for Colored Youths. Its 1,388 acres had been the Alta Vista Plantation in Waller County.

On March 11, 1878, eight young men began their studies there, paying tuition of \$130 for nine months of instruction and housing. Women were admitted in 1879, and enrollment grew over time as the university attracted the most intelligent, creative and athletically talented young people from the state's African American community.¹⁸

In 1879, the demand for educated black teachers convinced the Legislature to designate Prairie View Normal Institute as a teachers' college. In addition to education, Prairie View's curriculum expanded to include the sciences and arts, home economics and nursing. In 1919, the institution launched a four-year senior college program. In 1937, graduate programs were added in agricultural economics and education, rural education, rural sociology, and school administration and supervision.

In 1945, the Legislature changed the school's name to Prairie View University and authorized it to offer the same types of classes as the University of Texas. The school became Prairie View A&M College of Texas in 1947, providing a new emphasis on agriculture, the mechanical arts, engineering and natural sciences. In 1973, the university changed its name to Prairie View A&M University, and became an independent unit of the Texas A&M University System.¹⁹

In 2008, Prairie View A&M had 8,203 total students, with 29 percent of them in graduate programs. Prairie View offers baccalaureate degrees in 42 academic majors, 46 master's degrees and four doctoral programs. It has the only doctoral program in the U.S. for juvenile justice. Prairie View has become one of the nation's top producers of African American engineers, health professionals and agricultural scientists. NASA has designated the school as a national center for the study of radiation in space.

Prairie View's John B. Coleman Library holds more than 370,000 volumes and recently opened the President Barack Obama Special Collection. In 2009, the school's head women's basketball coach was inducted into the Women's Basketball Hall of Fame, and its marching band, "The Marching Storm," was featured as the lead band in the 2009 Rose Parade. Since 1878, the university has awarded more than 50,000 academic degrees. Its total economic benefit to the state has been estimated at \$480.3 million annually.²⁰



Exhibit 61

Gulf Coast Region Public Universities, Degrees Awarded

Institutions	Fiscal 2003	Fiscal 2008	Change	Percent Change
Prairie View A&M University	1,212	1,552	340	28.1%
Sam Houston State University	2,529	3,443	914	36.1
Texas A&M University at Galveston	189	263	74	39.2
Texas Southern University	860	1,355	495	57.6
University of Houston	6,273	7,016	743	11.8
University of Houston-Clear Lake	2,009	2,124	115	5.7
University of Houston-Downtown	1,447	2,095	648	44.8
Statewide Total	86,377	106,582	20,205	23.4%

Source: Texas Higher Education Coordinating Board.

Exhibit 62

Gulf Coast Region Two-Year Colleges, Degrees and Certificates Awarded

Institutions	Fiscal 2003	Fiscal 2008	Change	Percent Change
Alvin Community College	713	764	51	7.2%
Brazosport College	1,052	417	-635	-60.4
College of the Mainland	492	402	-90	-18.3
Galveston College	416	299	-117	-28.1
Lee College	1,258	1,361	103	8.2
Wharton County Junior College	742	582	-160	-21.6
Houston Community College System	583	3,492	2,909	499.0
Lone Star College System	371	2,908	2,537	683.8
San Jacinto College District	1,814	2,482	668	36.8
Statewide Total	46,859	55,809	8,950	19.1%

Source: Texas Higher Education Coordinating Board.

Liberty County Workforce Academy

To ensure that area residents have the skills to succeed in the classroom and the workplace, the Liberty County Workforce Academy (LCWA) provides training opportunities for the county youths and adults.

LCWA's mission is to "prepare youth and adults to make informed career choices and provide training that enable them to enter, compete and advance in a constantly changing workplace." LCWA offers career and technical education and training throughout the region thanks to collaborations with educational institutions, businesses and industry groups.

High school juniors and seniors as well as adult residents of Liberty County can enroll in LCWA classes. Its courses are offered free of charge and participants can earn college credit or certifications. Students receive classroom instruction based on industry standards and enhance their educational experience through hands-on training with state-of-the-art equipment.

LCWA's work is gaining recognition around the state and the nation. The Houston-Galveston Area Council, Texas Department of Agriculture, U.S. Department of Labor and the Texas Comptroller of Public Accounts, through the Jobs and Education for Texans (JET) program, have awarded various grants to support LCWA.²¹



Affordability

From 2002-03 to the 2009-10 school year, the costs of all eight public universities in the Gulf Coast region rose sharply, as they generally did statewide.

The increase rate of total costs at Gulf Coast universities' (including tuition and fees, transportation, books and supplies and room and board) ranged from less than half of the statewide average at Prairie View A&M to almost double the statewide average at Texas Southern University (**Exhibit 63**).

Tuition and fees at the region's community colleges rose as well, but generally less than

the statewide average cost increase of \$750 from 2002-03 to 2009-10. Total student costs for the 2009-10 academic year were higher at Lee College and the San Jacinto Colleges than at the average Texas community college, and lower than average at the region's other community colleges. Tuition and fee costs were below the state average at all of the region's community colleges except for Wharton County Junior College.²²

Estimated tuition and fee costs for the region's private universities were higher than the statewide average at both the start and the end of the period.²³

Exhibit 63

Gulf Coast Region, Higher Education Costs

Public Universities

Institution	Resident Tuition and Fees 2002-03	Resident Tuition and Fees 2009-10	Dollar Change 2002-03 to 2009-10	Percent Change 2002-03 to 2008-09	Resident Total Costs 2002-03	Resident Total Costs 2009-10	Increase Rate 2002-03 to 2009-10
Prairie View A&M University	\$3,232	\$6,664	\$3,432	106.2%	\$14,308	\$17,420	21.8%
Sam Houston State University	3,090	6,515	3,425	110.8	14,596	20,486	40.4
Texas A&M University-Galveston	4,272	7,063	2,791	65.3	11,194	19,803	76.9
Texas Southern University	2,718	6,401	3,683	135.5	12,889	24,518	90.2
Texas Womans University	3,432	6,660	3,228	94.1	12,297	16,940	37.8
University of Houston	3,735	8,168	4,433	118.7	14,403	23,622	64.0
University of Houston-Clear Lake	3,100	5,798	2,698	87.0	16,276	22,228	36.6
University of Houston-Downtown	2,778	5,000	2,222	80.0	12,710	21,676	70.5
Statewide Average	\$3,441	\$6,557	\$3,116	90.6%	\$13,047	\$19,424	48.9%



Exhibit 63 (cont.)

Gulf Coast Region, Higher Education Costs**Public Community Colleges**

Institution	Resident Tuition and Fees 2002-03	Resident Tuition and Fees 2009-10	Dollar Change 2002-03 to 2009-10	Percent Change 2002-03 to 2008-09	Resident Total Costs 2002-03	Resident Total Costs 2009-10	Increase Rate 2002-03 to 2009-10
Alvin Community College	\$830	\$1,336	\$506	61.0%	\$5,851	\$9,337	59.6%
Brazosport College	770	1,542	772	100.3	9,622	11,300	17.4
College of the Mainland	639	1,166	527	82.5	9,255	10,136	9.5
Galveston College	840	1,414	574	68.3	9,978	11,794	18.2
Houston Community College System	645	1,290	645	100.0	8,977	11,022	22.8
Lee College	366	1,302	936	255.7	8,380	15,570	85.8
Lone Star College*	1,130	1,152	22	1.9	7,310	11,942	63.4
San Jacinto College	966	1,310	344	35.6	11,058	14,099	27.5
Wharton County Junior College	1,860	1,920	60	3.2	8,640	12,015	39.1
Statewide Average	\$1,120	\$1,870	\$750	67.0%	\$9,248	\$13,184	42.6%

Private Institutions

Institution	Resident Tuition and Fees 2002-03	Resident Tuition and Fees 2009-10	Dollar Change 2002-03 to 2009-10	Percent Change 2002-03 to 2008-09	Resident Total Costs 2002-03	Resident Total Costs 2009-10	Increase Rate 2002-03 to 2009-10
Houston Baptist University	\$16,916	\$20,830	\$3,914	23.1%	\$26,666	\$33,205	24.5%
Rice University	22,113	32,057	9,944	45.0	32,043	46,237	44.3
University of St. Thomas	13,912	21,880	7,968	57.3	24,504	36,368	48.4
Statewide Average	\$11,943	\$19,679	\$7,736	64.8%	\$21,948	\$30,102	37.2%

*Lone Star College was formerly known as the North Harris Montgomery Community College District.

Note: Resident total costs include tuition and fees, books and supplies, room and board, transportation and personal expenses.

Source: Texas Higher Education Coordinating Board.

Funding

The statewide average for public universities' total revenue, including tuition and fees, general revenue appropriations, federal funds and institutional funds, rose by 15.6 percent

from fiscal 2006 to fiscal 2008. In the Gulf Coast region, Texas A&M - Galveston and Texas Southern were the only public universities that saw their total revenues rise faster than the statewide total over the three-year



period. Texas Woman's University saw a small decrease in revenue. (**Exhibit 64**).²⁴

Total revenue for Texas community colleges rose by 18.2 percent between fiscal 2006 and 2008, versus 18.9 percent for community colleges in the Gulf Coast region. The

largest components of these increases were higher tuition and fees and increased local funds. Brazosport College was the region's only community college to experience a drop in annual revenues (**Exhibit 65**).²⁵

(text continued on Page 137)

Exhibit 64

Gulf Coast Region, Public Universities Total Revenue Sources

Prairie View A&M University

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$22,422,152	\$31,206,589	39.2%
State appropriations	67,843,569	71,236,822	5.0
Federal funds	35,264,632	31,817,364	-9.8
Institutional funds	11,426,162	8,315,989	-27.2
Total Revenue	\$136,956,515	\$142,576,764	4.1%

Sam Houston State University

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$54,841,797	\$64,032,603	16.8%
State appropriations	55,667,854	62,570,309	12.4
Federal funds	18,610,904	20,149,070	8.3
Institutional funds	22,029,377	23,828,706	8.2
Total Revenue	\$151,149,932	\$170,580,688	12.9%

Texas A&M University at Galveston

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$8,779,204	\$10,110,169	15.2%
State appropriations	14,360,121	19,661,251	36.9
Federal funds	3,192,525	3,155,209	-1.2
Institutional funds	3,960,442	4,121,833	4.1
Total Revenue	\$30,292,292	\$37,048,462	22.3%

Texas Southern University

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$39,718,075	\$42,641,753	7.4%
State appropriations	68,689,525	93,489,322	36.1
Federal funds	39,397,379	38,069,003	-3.4
Institutional funds	10,777,027	9,252,331	-14.2
Total Revenue	\$158,582,006	\$183,452,409	15.7%



Exhibit 64 (cont.)

Gulf Coast Region, Public Universities Total Revenue Sources***Texas Woman's University***

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$49,571,800	\$51,054,036	3.0%
State appropriations	67,297,704	70,698,647	5.1
Federal funds	10,137,709	12,023,836	18.6
Institutional funds	26,626,538	12,906,955	-51.5
Total Revenue	\$153,633,751	\$146,683,474	-4.5%

University of Houston

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$171,220,730	\$201,355,431	17.6%
State appropriations	187,972,811	218,669,963	16.3
Federal funds	75,333,190	81,430,949	8.1
Institutional funds	178,198,916	188,276,980	5.7
Total Revenue	\$612,725,647	\$689,733,323	12.6%

University of Houston-Clear Lake

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$26,872,538	\$30,994,061	15.3%
State appropriations	34,118,285	36,409,638	6.7
Federal funds	4,952,211	4,773,441	-3.6
Institutional funds	7,212,082	9,823,499	36.2
Total Revenue	\$73,155,116	\$82,000,639	12.1%

University of Houston-Downtown

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$26,965,114	\$36,592,057	35.7%
State appropriations	30,911,056	36,065,651	16.7
Federal funds	19,233,131	18,360,892	-4.5
Institutional funds	12,224,032	7,231,658	-40.8
Total Revenue	\$89,333,333	\$98,250,258	10.0%

Statewide

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$2,000,693,293	\$2,400,749,604	20.0%
State appropriations	2,599,091,546	2,949,486,914	13.5
Federal funds	1,161,122,338	1,260,930,090	8.6
Institutional funds	1,375,219,819	1,638,009,659	19.1
Total Revenue	\$7,136,126,996	\$8,249,176,267	15.6%

Source: Texas Higher Education Coordinating Board.



Contact hours — the time a teacher actually spends in the classroom with students — for community, state and technical colleges rose by 25.5 percent statewide from fall

2000 to fall 2008. In the Gulf Coast region, contact hours at schools increased by varying amounts, ranging from 0.7 percent at Lee

(text continued on Page 139)

Exhibit 65

Gulf Coast Region, Public Community and Technical College Revenue

Alvin Community College

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$5,704,873	\$6,925,943	21.4%
State Funds	10,341,879	10,903,716	5.4
Local Fund	9,177,750	11,102,379	21.0
Other Revenue	4,535,912	4,439,356	-2.1
Total Revenue	\$29,760,414	\$33,371,394	12.1%

Brazosport College

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$5,531,324	\$6,351,568	14.8%
State Funds	7,041,120	8,018,292	13.9
Local Fund	6,379,857	8,145,443	27.7
Other Revenue	6,905,365	3,025,053	-56.2
Total Revenue	\$25,857,666	\$25,540,356	-1.2%

College of the Mainland

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$5,459,023	\$5,620,209	3.0%
State Funds	8,445,141	9,572,171	13.3
Local Fund	16,622,799	20,887,193	25.7
Other Revenue	7,310,480	8,845,230	21.0
Total Revenue	\$37,837,443	\$44,924,803	18.7%

Galveston College

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$2,810,103	\$2,614,011	-7.0%
State Funds	5,724,768	6,146,448	7.4
Local Fund	6,555,487	8,234,235	25.6
Other Revenue	3,957,946	3,859,074	-2.5
Total Revenue	\$19,048,304	\$20,853,768	9.5%



Exhibit 65 (cont.)

Gulf Coast Region, Public Community and Technical College Revenue***Houston Community College System***

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$68,210,461	\$83,093,303	21.8%
State Funds	76,641,509	80,863,825	5.5
Local Fund	82,580,297	97,214,316	17.7
Other Revenue	52,610,089	56,373,462	7.2
Total Revenue	\$280,042,356	\$317,544,906	13.4%

Lee College

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$7,486,371	\$8,174,703	9.2%
State Funds	12,501,044	13,690,714	9.5
Local Fund	14,898,579	18,687,122	25.4
Other Revenue	10,404,396	16,121,355	54.9
Total Revenue	\$45,290,390	\$56,673,894	25.1%

Lone Star College

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$39,067,185	\$50,902,449	30.3%
State Funds	54,696,754	72,000,555	31.6
Local Fund	86,951,108	118,177,633	35.9
Other Revenue	31,212,711	36,885,779	18.2
Total Revenue	\$211,927,758	\$277,966,416	31.2%

San Jacinto College

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$33,837,621	\$39,029,590	15.3%
State Funds	43,905,833	47,658,028	8.5
Local Fund	42,072,751	53,316,465	26.7
Other Revenue	32,158,902	34,715,863	8.0
Total Revenue	\$151,975,107	\$174,719,946	15.0%

Wharton County Junior College

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$8,712,467	\$12,362,228	41.9%
State Funds	10,461,569	11,111,970	6.2



Exhibit 65 (cont.)

Gulf Coast Region, Public Community and Technical College Revenue

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Local Fund	3,422,695	4,246,434	24.1
Other Revenue	4,959,365	6,746,097	36.0
Total Revenue	\$27,556,096	\$34,466,729	25.1%

Statewide

Revenue Source	Fiscal 2006	Fiscal 2008	% Increase
Tuition and fees	\$789,296,695	\$939,695,923	19.1%
State Funds	968,570,165	1,104,926,800	14.1
Local Fund	927,555,841	1,213,303,270	30.8
Other Revenue	855,379,261	929,063,352	8.6
Total Revenue	\$3,540,801,962	\$4,186,989,345	18.2%

Source: Texas Higher Education Coordinating Board.

In the Gulf Coast region, contact hours at schools increased by varying amounts, ranging from 0.7 percent at Lee College to 54.4 percent in the Lone Star College System.

Birthplace of the Texas Flag

The iconic Texas flag was born in Montgomery. The design of a horizontal panel of red and one of white, with a perpendicular blue panel featuring a lone star, is credited to Montgomery postmaster and pharmacist Dr. Charles Bellinger Stewart.

Stewart was the first secretary of state for the Republic of Texas. Texas President Mirabeau B. Lamar appointed a committee comprising Dr. Stewart, Thomas Barnett and Richard Ellis to create an official flag for the republic. Stewart is also credited with drawing the design for the seal of the Republic of Texas.

President Lamar approved the designs for the flag and the seal of the Republic in 1839. The original flag drawing is in the Texas State Archives; a replica can be viewed at the N.H. Davis Pioneer Complex and Museum in Montgomery.

In 1845, the newly created state of Texas adopted the Lone Star flag as the official state flag, along with a modified seal reflecting Texas' entry into statehood.²⁶

College to 54.4 percent in the Lone Star College System. (**Exhibit 66**).²⁷

Educational achievement will play a vital and positive role in the Gulf Coast region's economic future. But significant increases in

enrollment at the majority of the region's colleges and universities will place new demands on the region's higher education infrastructure, requiring more instructors to keep pace with student needs.



Exhibit 66

Gulf Coast Region, Contact Hours at Community, State and Technical Colleges

Institution	Fall 2000	Fall 2008	% Change 2000 to 2008
Alvin Community College	630,400	733,656	16.4%
Brazosport College	568,688	582,304	2.4
College of the Mainland	581,344	606,848	4.4
Galveston College	369,225	373,696	1.2
Houston Community College System	5,240,288	6,009,500	14.7
Lee College	974,160	980,928	0.7
Lone Star College	3,824,984	5,907,320	54.4
San Jacinto College	3,623,074	4,662,888	28.7
Wharton County Junior College	870,984	1,065,984	22.4
Public Community & Technical College Statewide Total	73,370,630	92,048,303	25.5%

Source: Texas Higher Education Coordinating Board.

Endnotes

- ¹ Texas Education Agency, "2008-09 Academic Excellence Indicator System Download of All Data," <http://ritter.tea.state.tx.us/perfreport/aeis/2009/DownloadData.html>. (Last visited January 20, 2010.) Custom queries with calculations by Texas Comptroller of Public Accounts.
- ² Texas Education Agency, "2009 Accountability Rating System," <http://ritter.tea.state.tx.us/perfreport/account/2009/index.html> (Last visited January 20, 2010.)
- ³ Houston Theater District, "About Houston Theater District," <http://www.houstontheaterdistrict.org/en/cms/?68>; Greater Houston Partnership, "Arts and Culture," <http://www.houston.org/pdf/research/20CW001.pdf>; and Americans for the Arts, *Arts & Economic Prosperity III: The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences: National Report* (Washington, D.C., 2007), p. A-29, http://www.americansforthearts.org/pdf/information_services/research/services/economic_impact/aeiii/national_report.pdf. (Last visited January 26, 2010.)
- ⁴ City of Houston, Texas, "Jones Hall for the Performing Arts: General Information," <http://www.houstontx.gov/joneshall/general.htm>; U.S. Department of Commerce, "Secretaries of Commerce," <http://www.commerce.gov/secretaries.html>, p. 3; Alley Theater, "A Home of Our Own," http://www.alleytheatre.org/Alley/a_Home_of_Our_Own_EN.asp?SnID=788151202; City of Houston, Texas, "Wortham Center: General Information," <http://www.houstontx.gov/worthamcenter/general.htm>; and Hobby Center for the Performing Arts, "About the Hobby Center," <http://www.thehobbycenter.org/hobbyprod/ExportedSite/aboutus/The%20Hobby%20Center.htm>. (Last visited January 26, 2010.)
- ⁵ Houston Symphony, "History," <http://www.houstonsymphony.org/about/history.aspx>; "Orchestra Musicians," pp. 1-2, <http://www.houstonsymphony.org/about/conductorsmusicians/orchestramusicians.aspx>; "Administrative Staff," <http://www.houstonsymphony.org/about/boardstaff/administrativestaff.aspx>; "Community Connections," <http://www.houstonsymphony.org/education/communityactivities/communityconnections.aspx> (last visited January 26, 2010); and *Houston Symphony Annual Report 2007-2008* (Houston, Texas), p. 11.
- ⁶ Houston Grand Opera, "About Us," <http://www.houstongrandopera.org/abouthgo>; "Great Stories, Great Singers, Great Price: Houston Grand Opera 09/10 Season," http://www.houstongrandopera.org/uploads/hgo_brochure_lowres.pdf, (pamphlet); "About HGO: 1988-1989, 1991-1992, and 1996-1997," <http://www.houstongrandopera.org/historyofhgo>; Houston Grand Opera Association, Inc., *Consolidated Financial Statements and Independent Auditors' Report for the Years Ended July 31, 2008 and 2007* (Houston, Texas, February 5, 2009), p. 3, <http://www.houstongrandopera.org/uploads/Financials/Houston%20Grand%20Opera%202008%20FS.pdf>; "Houston Grand Opera Studio," <http://www.houstongrandopera.org/page.aspx?pageid=12016993>; "HGOco," <http://www.houstongrandopera.org/hgoeducation>; and



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Conclusion

The outlook for the Gulf Coast region remains positive. The region's diverse and mature industrial mix will provide valuable support for the state and national economies.

Personal income levels in the region exceed the state average by 24 percent, at \$45,968 versus \$37,083. The region's employment in private health care showed strong growth in the first eight years of this decade, and its construction projects related to health care were among the state's ten largest in 2008 and 2009. Emerging industries including trade, transportation and tourism should remain strong, as will the more traditional energy industries.

The region is home to several of the world's largest energy companies, including BP, CITGO, ExxonMobil, Shell and ConocoPhillips. Its four major ports support the region's manufacturing and energy industries as well as international trade.

Enrollment in the region's educational institutions remains robust. In fall 2008, 243,553 students were enrolled in the Gulf Coast region's public and private universities, colleges and health-related institutions.

The Comptroller's office is ready to help the Gulf Coast region meet its challenges

by providing economic information and analysis. For assistance, please e-mail the Comptroller's Local Government Assistance and Economic Development Division at local.govt@cpa.state.tx.us, or call toll-free at 1-800-531-5441, ext. 3-4679.

Contact information for local government assistance is also available on the TexasAhead Web site at www.texasahead.org/lga.

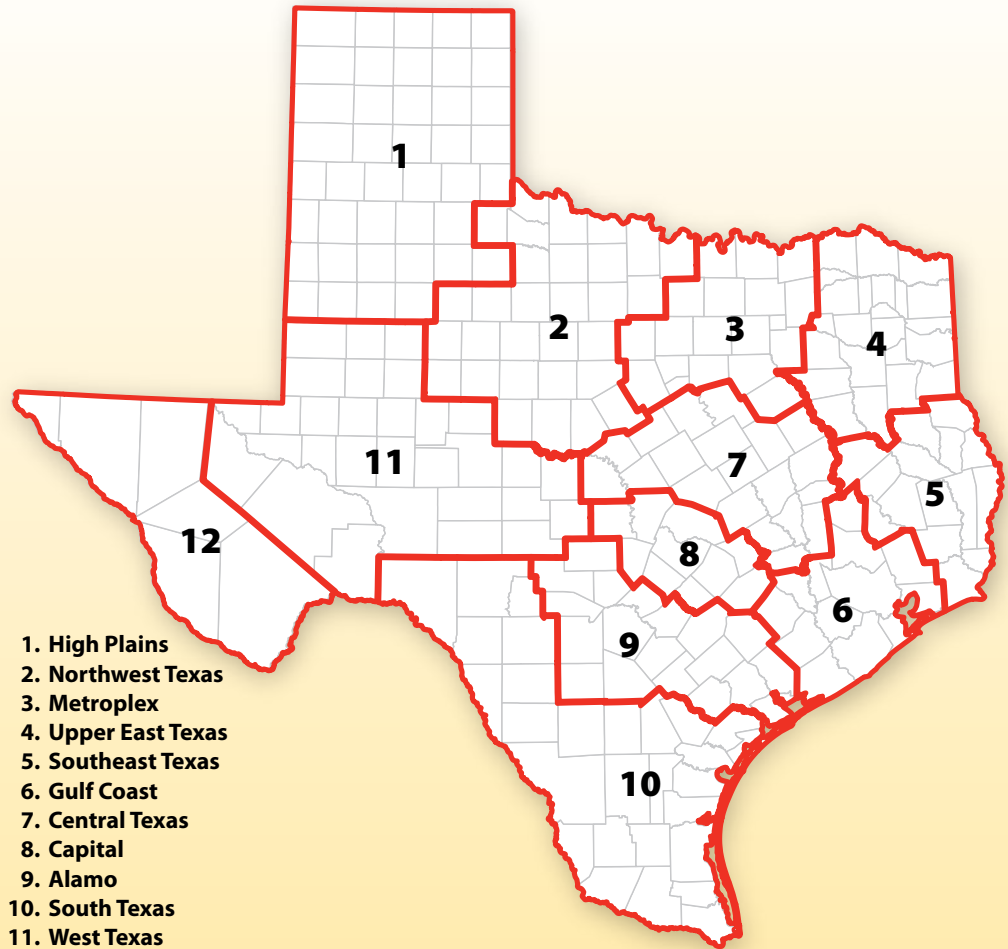
We will continue to provide local and state leaders with detailed information in this ongoing series. We hope you look forward to future volumes in this series, which will highlight each of the state's 12 economic regions (**Exhibit 67**).

For previous reports in this series, please see the Comptroller's *Texas in Focus: A Statewide View of Opportunities* at www.window.state.tx.us/specialrpt/tif for a statewide perspective, as well as *Texas in Focus: High Plains* (www.window.state.tx.us/specialrpt/tif/highplains), *Texas in Focus: South Texas* (www.window.state.tx.us/specialrpt/tif/southtexas), *Texas in Focus: Upper East Texas* (www.window.state.tx.us/specialrpt/tif/uppereast), *Texas in Focus: Central Texas* (www.window.state.tx.us/specialrpt/tif/central), *Texas in Focus: Upper Rio Grande* (<http://www.window.state.tx.us/specialrpt/tif/urgrande/>) and *Texas in Focus: Alamo Region* (<http://wosgacc/specialrpt/tif/alamo/>).



Exhibit 67

Map of Economic Regions



Source: Texas Comptroller of Public Accounts.